Small Farmer's Journal

Featuring PRACTICAL HORSE-FARMING

FALL QUARTER, 1985

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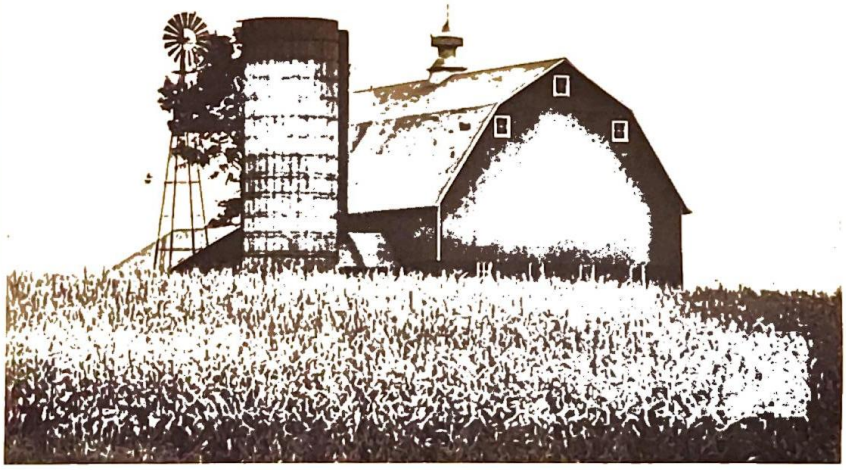

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QUARTERLY

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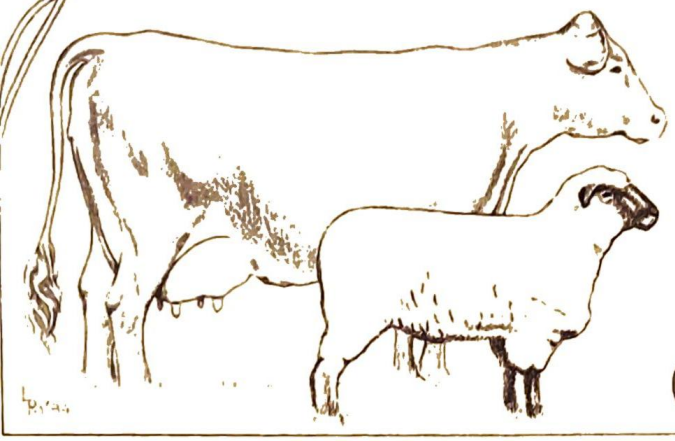

"...intellect is secondary in importance to will. A vacillating man, no matter what his abilities, is invariably pushed aside, in the race of life, by the man of determination. It is he who resolves to succeed, who begins resolutely again at every fresh rebuff, that reaches the goal."

-from TEN ACRES ENOUGH

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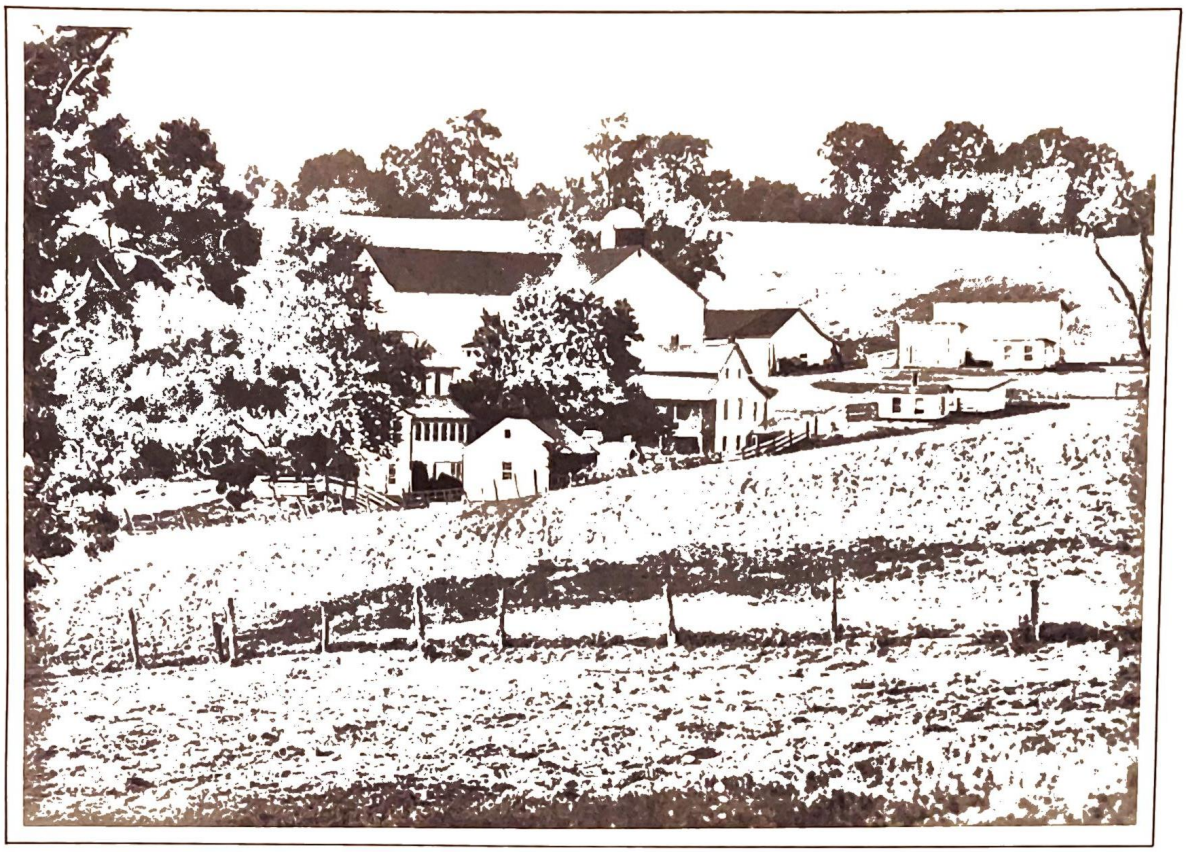

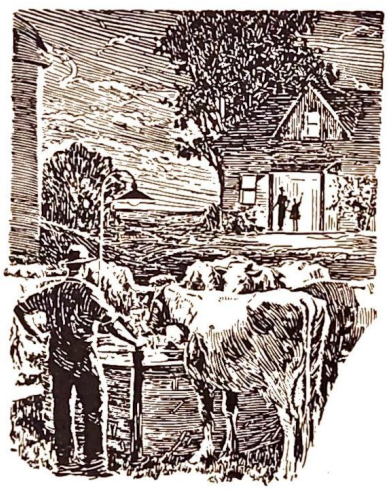

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Typesetting for this issue was done on an old dinosaur composer by Lynn Miller and Kristi Gilman. The errors you see are 100% pure mistakes, they are guaranteed unintentional. We can only worry at the harm they cause and beg forgiveness. Pasteup and layout was done in a 10 X 12 room with exacto knifes, hot wax and paper flying.

This publication is hand-crafted, made from all natural ideas. No synthetic ideas have been used.

Above photo; This beautiful Amish farmstead, somewhere in Wayne County, Ohio, was captured on film by Kristi Gilman.

On the front cover; This photo was taken somewhere in Iowa by Nancy Roberts who lives somewhere in Boston. Nancy worked with us on the Journal staff for more than three years before she went east to a successful career as teacher and artist. We still miss her.

On the back cover; On the road from Charm to Berlin Ohio you might see this Amish farm. It was a lovely Monday afternoon in September when Kristi Gilman took this photo. Notice the corn shocks in the field up behind the house. Oh, what a pretty, peaceful, secure landscape...

MISCELANY

Special Note:

I, on behalf of Justin, Juliet myself and all the members of our immediate family, thank the hundreds of you who sent your condolences on the loss of our "little man" Ian Lewis Miller. For those who might not know, my seven year old son was killed in an accident on a neighbor's farm on May 28th of this year.

It has been the toughest time of our lives. And something I've grown weary of talking about. But please believe me when I tell you that I had no idea we have so many dear and caring friends. Your prayers, your many kindnesses, your touch has helped beyond measure.

As for us, we are well and working very hard. The children and I are very excited about our decision to get started with the small Jersey dairy we've dreamed about for so long. It will take quite a while and always be low key, maybe 10 to 15 cows tops. The pressures of keeping this little publishing business going will no doubt continue, but we're doing what we want to do and what we believe in. We have much to be thankful for. Including your thoughtfulness and friendship. Our hearts go out to you. LRM

NEWS from HERE...

SFJ offices are much like a war zone as I type this. There is paper and debris everywhere. We are two days behind our deadline and our eyeballs are giant red orbs. Mistakes and omissions aside, its almost done. And we'll be going right back to work to try to put out the Winter issue immediately and get us on our new schedule. We've been so busy of late that there isn't much in the way of anecdotes to tell on staff this time around. Kristi and her three million cats are moving into the other house on the farm. Joann's mechanic husband has taken her car while his pickup is broke down so she's commandeered her son's monstrous old cadillac. There is a real Pinochle feud between my partner Joann and the other team which includes Joann's husband and our own Kristi Gilman. It seems they are sore winners as well as sore losers. (boy that's gonna get me in trouble!) Susanne and Cal have been busy at our Eugene office getting your orders filled. And dad, Ralph Miller, is in a huff trying to decide whether Florida will be warmer this winter or if he should just stay in Oregon.

Kelly Klober is absent from this issue as he is very busy with a new small farm newsletter he's putting out for the midwest. We hope to be able to tell you more about that later. And promise he'll be back in print with us in the Winter issue.

We had wonderful visits from some friends of SFJ this recent fall. Scott Borello, a horse-logger from Garden Valley, California came and spent some time with us. He put in a lot of work and we sure appreciated his visit. All the way from Massachusetts! Al and Caroline Craig of Essex flew out and spent four days with us which included Halloween, an experience I am sure they will not soon forget. On one day we went to the Pacific Ocean, just a few miles from us, and quite a stir was created by Kristi's discovery of a wild seal playing in a culvert. To this day Al insists that she made up the story. The repartee was good for a couple of days worth of good natured kidding. We sure enjoyed their visit, we give it a "seal" of approval. There's more to tell but that's some of the 'front porch' stuff I thought you'd enjoy.LRM

NEWS from THERE

As you can see on the next page, I'm going to be speaking, or trying to, at the Ecological Farming Conference down in Calif in February. Maybe I'll see some of you there. Hope so.

I bought a Belgian mare from Laurence Hilliard, in Iowa (see TRAVELOG in this issue) and will have to go get her soon which means driving my truck and trailer cross-country. Who knows, I may be chaining up in front of your house when the biscuits are coming out of the oven... Thinking about trips to Kentucky and Tennessee as well as New England, but NO plans made just yet. I guess all this is to say we'll be getting around some this year so perhaps we might see each other...LRM

I was contacted this fall by a gentleman with a consulting firm which is working on behalf of the American Horse Council to do a sophisticated survey of horse ownership and use in America. He expressed a genuine frustration at not being able to get access to that sort of information from the draft (work) horse sector. In a letter he states...

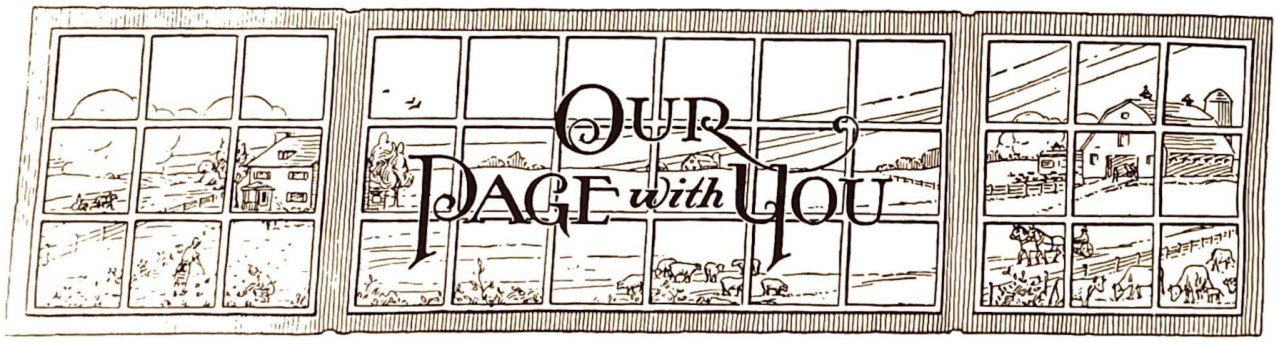
"The information sought is in the following areas
1. number and type of equine owned
2. use of equine
3. maintenance and stabling arrangements
4. state distributions

...I am clearly frustrated at this stage by the difficulty of using the same procedures in the draft horse case as in the other breeds. In several cases we have gone to considerable length to provide assurances and guarantees of confidentiality sought by the provider of a list. However, in other cases the established policy was reiterated with the opportunity for a fuller examination of the special nature of our request and objectives.

...The irony is that such suspicion is largely in the draft horse breeds and certain regions of the country which have not been well surveyed in the past. As a result, they may not be well surveyed in this national study..." Jonathan Strauss, senior economist with deSeve Economics Assoc.

If you folks feel that we'd be better served with good survey and census-type data available on the draft horse industry (I do) perhaps you might consider writing to your breed associations and to Mr. Strauss. His address is;

Jonathan Strauss
deSeve Economics Assoc.
1730 M Street NW
Suite 910
Washington, DC 20036
(202) 822-0721



ECOLOGICAL FARMING CONFERENCE

The Steering Committee For Sustainable Agriculture (SCSA) sponsors the ECOLOGICAL FARMING CONFERENCE, now in its sixth year. The date for the next conference is January 31st – February 2nd, 1986. In case you are unfamiliar with the conference, it is worth knowing about. This event has become a "must" for people in the organic farming industry in California, from farmers to produce wholesalers and retailers to researchers, extension agents, students, and consumers concerned about the quality of food and the health of our agricultural system.

600 people are expected this year. Speakers include Robert Rodale, Marty Strange, Garth Youngberg and Lynn Miller. If you want to attend it would be best to make reservations now as they expect to have a sellout. Contact SCSA P.O. BOX 1394 Davis Calif. 95617. (916) 753-1054

This year's conference will focus on transitions, with an emphasis on more technical and practical information useful for farmers. The theme of "Bridges to Healthier Farms" will concentrate not only on transitions away from synthetic chemicals, but also towards less energy intensive and more sustainable methods of farming. (Work Horses!)

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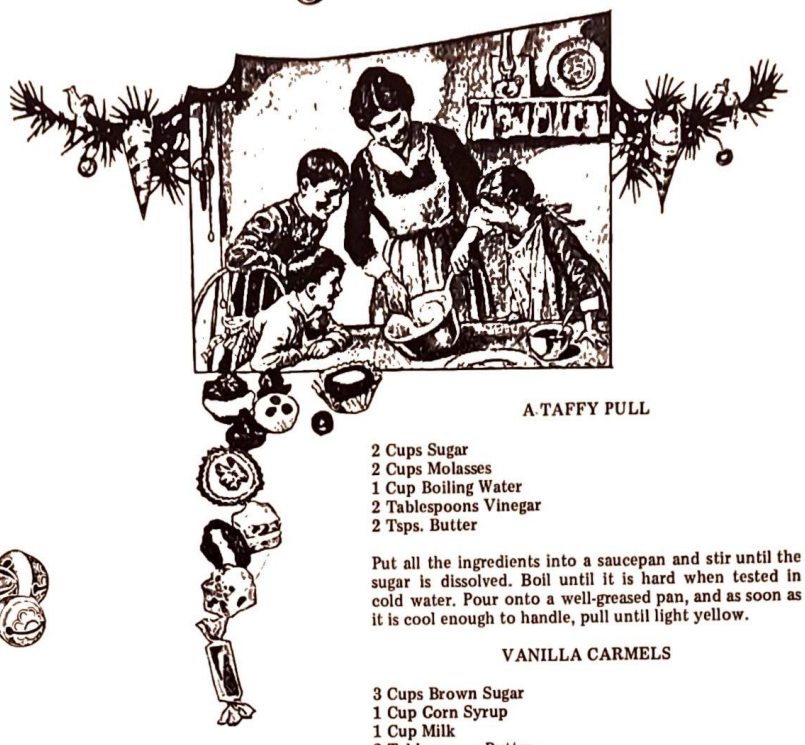
holiday sweets...



A TAFFY PULL

2 Cups Sugar
2 Cups Molasses
1 Cup Boiling Water
2 Tablespoons Vinegar
2 Tsps. Butter

Put all the ingredients into a saucepan and stir until the sugar is dissolved. Boil until it is hard when tested in cold water. Pour onto a well-greased pan, and as soon as it is cool enough to handle, pull until light yellow.

VANILLA CARMELS

3 Cups Brown Sugar
1 Cup Corn Syrup
1 Cup Milk
2 Tablespoons Butter
2 Teaspoons Vanilla

Boil the sugar, milk and butter together, stirring constantly, until the mixture froms a soft ball in cold water. Remove from fire, add vanilla, and pour into a shallow pan. When cool cut into squares.

GRAPE SHERBET

Have ready:
1 lb. Sugar
4 Cups Water
2 Cups Grape Juice
The Juice of One Lemon

Stir water and sugar together until the latter is dissolved; bring to the boiling point and let boil five minutes. Strain and when cool add the grape juice and lemon juice. Turn the mixture into the freezing can and freeze. Serve in glasses with a garnish of whipped cream.

CHOCOLATE CARMELS

3/4 Cup Molasses
3 Cups Sugar
6 Tablespoons Cocoa
3/4 Cup Milk
2 Tablespoons Butter

Boil all together, and proceed the same as for Vanilla Carmels.

LETTERS

Dear Friends,

I have some very special pole bean seed that I would like to share with a few people who would like them.

This bean has been in my family for 50 years. Mother kept them as they are and they are great! I don't know what the variety is but, who cares? They are very prolific and can be used green pod, shelled while green and cooked as dry beans.

Each pod has from 5 to 7 seeds in it and grow tall if you let them. I had some this year that climbed poles 7 feet then arbored across another 6 feet.

If anyone would want a few to get a start please let me know and send a stamp if they can. (P.S. they make good chili too!)

Sincerely yours,
Wes White
7705 Highway 175
Kelseyville, Calif. 95451

Dear Friend,

Sure do enjoy SFJ altho it is a yankee magazine. Ya'll have a different way of working and different terminology from us rednecks.

Have retired after spending 30 years in the offshore oilfields and came back to my first love — farming with mules.

Sure do wish we could visit in your community. If you're ever down this way we'd be glad to see you. (The photo is of Kit & Babe pulling a riding cultivator "laying by" corn.)

Yours Truly,
Charles Ott
Mt. Hermon, La

Dear Mr. Ott,

With your help maybe we can learn to understand the differences well enough to recognize what we got in common. I was born in Kansas City, does that make me a yankee, a southerner, or a fence sitter by birth? Whatever it is I feel kinship in all directions and suspect we got more in common than not. Yours are two of the finest mules I've ever seen in photographs. LRM.

Dear Lynn,

I rent 20 acres with barn and am in my third season of custom barn white-washing, pressure washings etc. Put two light horses on wagon and go as much as 14 miles one way to white wash barns. So get to meet alot of different farmers. Must admit these long trips get tiring for team and driver both. But interesting all the same. Wonder if any of you out their have any experience with white wash. Would like to hear hints, comments for recipes or how I could lighten my load, etc. And last of all thanks for this good magazine. We sure enjoy it, just hope it does not change.

Sincerely,
John Miller
RR2
Lucknow, Ontario
Canada NOG 2HO

Hope that any of you folks who might respond to John's letter will send the infomration our way as well, so that we can share those white-washing ideas with other readers. Thanks John. LRM

Dear Lynn,

I'm sitting here listening to the Farm Aid Concert and thinking about your Ian and hope. Somehow they all intertwine in this highly emotional time we are going through right now...

...Don't back off of your "quasi-religious" editorial stance you have taken, and been criticized for. America is a nation of not only people but also of values. One of these values is that government is to represent all the people, not just vested interests. Another value is that hard work and honest endeavor will be rewarded in our society. Presently this is not occuring. Speculators, International traders, flim-flam men, and exploiters are the ones who are monetarily rewarded.

Farmers, especially small farmers, are not asking for welfare or undue treatment. We are asking for a fair price for our production. We are asking for hope, or the chance to hope. Hope that our dreams can be fulfilled, that we can survive as a viable sector of society, make an honest living for ourselves and family, (without having to work 18 hours a day) and hope that our families can live and work together to maintain a life that fosters honest and lasting values.

Lynn, nature is a great healer. It can heal your wounds (as you found out) and it can also heal our country's wounds. We need to keep people on the land, in touch with the soil; the more the better...

Peace
Bushrod James
Clayton, Ks

Gentlemen,

Recently, we bought a Viking V-1 Fanning Mill that was manufactured by Pioneer Fanning Mill Co. of Minneapolis, Minn. This mill can be operated by hand or with a motor.

We are looking for alfalfa screens for this mill; however we cannot find out the address of the company or if another company bought them out. We were wondering if any of your readers would know about this company or where we could get these alfalfa seed screens. The machine is uniques from any we have seen because the screens are round tubes instead of flat. Thank you for your help we really enjoy your magazine.

Sincerely,
Georgia Talsma
RR 1, Box 112
Spingfield, SD
57062

Charlie Ott and his Mules

Dear SFJ,

I would like to offer some reader response type input:

Please continue publishing quarterly and NOT more frequently. It actually does take me about 3 months to read and absorb all the information, stories, and feelings printed.

The size of the Journal is just right. You do a fine job of placing photographs. Also appreciate that you always have a goodly number of photographs. (The larger pages seem to accomodate this).

The white-nonglossy pages make the print very comfortable to read.

I very, very much appreciate that advertisements are mostly all clustered together on the rear pages of each Journal. It is quite a pleasure to read the articles and look at the photographs and drawings without being distracted and/or bombarded by advertisements. Then afterwords I read the advertisements somewhate leisurely. Thanks so much for that style of format.

Could you possibly, occasionally, include more articles on smaller scale vegetable and field crop farming (e.g. potatoes, onions, garlic, melons etc.)? Maybe some articles on small scale raising of poultry and livestock feeds (e.g. Kale, comfrey, sudan grass etc.) These articles would be very useful if they had specific information on when to plant, types of soil desirable, fertilization, cultivation, watering, harvesting.

I realize there are many, many magazines and books that do focus in this area but most of them seem to be somewhat of a contrived "back to nature" pie-in-the-sky attitude. The articles in SFJ have a more genuine quality and are much more responsible to land stewardship and to unsuccessful or unpleasant experiences as well.

Hopefully, the above observations and suggestions are not inappropriate at this time.

Thank you very much for your effort and service to the community.

Sincerely,
Marcus Lipton
Santa Rosa, Calif.

Dear Marcus,

Your suggestions, comments, criticisms are well received, thank you. We will be working to give what you, and others, are requesting. (See Wild Rice, Answered Questions, and All Weather Poultry Housing in this issue). LRM.

Dear Lynn,

I just had to write and let you know how much my Dad (Howard) and myself enjoy your Small Farmer's Journal. I'm not sure how long my Dad has been a subscriber, but we've really enjoyed each issue. I think my Dad has just about every issue — one fact my Mother won't let him forget when it comes cleaning day! Thank you for the warm, personal feeling each issue contains. We feel like we know Lynn Miller and his family.

We were so sorry to hear about Ian, But even for the few short years he was here, he got to experience the life the farm provides. And that's about the best life one can

experience. Thank you for sharing "Fragile Hope" with us. We all need to be reminded to share our love with those we care about, we forget so easily.

My Dad, with what little farming he is able to do now, farms with horses. We've never owned a tractor. Something we are rather proud of!! My Dad's love for the farm and his love of the horses has been instilled in me, you see... I know it's the best life... one that I thank God for all the time. Maybe one day I'll have my own farm and be able to pass that love to my children.

Lynn, thank you for having the courage and stamina to continue on with the Journal. We need more editors and publishers that really believe in what they write and when they go through hard financial times, they are willing to give up some of those very things they really love in order to continue on.

Thank you,
Zelda N. Butler
Dry Ridge, Ky.

Dear Small Farmer's Journal,

Over the years I have greatly enjoyed SFJ and have appreciated the willingness of the reader community to share their experiences and information. It is with hope of others having information I now need that I am writing.

Last winter we finally managed to sell our farm in Quebec and purchase a 54 acre farm here in the beautiful Fraser Valley of British Columbia where the climate is much more to our liking. Although we have a large mortgage (forcing me to hold an outside job) and much work to do as the farm was very run down, to say nothing of an on-going summer drought, we are delighted to be here. My only regret is the team of work horses and horse machinery, which we had to leave in Quebec due to the expense of moving. At the time I figured I would be able to acquire replacements in B.C. which has turned out to be wrong.

There are light horses of all kinds and colours but no work horses. The situation for machinery is even worse. I was told during my numerous inquiries that they are "much more advanced in agriculture than Eastern Canada" and therefore no longer farm or log with horses. Interesting, n'est-ce pas? I have since purchased two Ayrshire bull calves that I hope to raise and train as Oxen, as it is easier to make a yoke than to locate collars and work harnesses. This still leaves me with the problem of locating a few pieces of machinery in good working order — manure spreader, mower, plow and harrows. I would like to hear from anyone within a reasonable distance, who would have any of the above or information on sources.

Other than the two bull calves we have one Ayshire heifer, one Jersey x Highland heifer, eight dairy goats (including two ex-bucks for meat this fall), several breeds of chickens, geese, ducks, guineas and turkeys. Until we can get up proper fencing (line and cross-fencing), we must limit the number of stock.

This brings to mind another problem we have encountered here which is predators. The two main ones we have had are black bears and coyotes, although the area does have the odd cougar problem. I would like to hear from others who have found a successful solution to such predators. Are guard dogs really effective in dealing with these kinds of predators? If so, what breeds and what kind of training is required? Are electric fences really effective and what kinds?

Last, but not least, I have been interested for many years in what I call alternative livestock as a means of better utilizing marginal farm land. Furthermore, the standard breeds along with just about all kinds of standard farm productions are so overly regulated in Canada with quotas (extremely expensive to purchase) and marketing boards that it is financially impossible for the average new-comer to get into farming for a living.

I am aware of great progress being made in other countries in recognizing the potential of alternative livestock such as reindeer, elk, bison, domestic water buffalo, yaks, etc. In B.C. it is next to impossible to consider reindeer, elk or bison due to all the government regulations and permits required, which limits one to researching doestic water buffalo, yaks and possibly a few other unnamed breeds. I would again appreciate hearing from others with experience or a similar interest in such a venture. My interest is of a commercial nature and not as pets or a zoo attraction. I am also hoping to identify sources for domestic water buffalo, Barbados black-belly sheep and Scottish black-face sheep.

Finally I feel obligated to point out a very misleading ad which appeared under "Poultry and Eggs' in the spring quarter 1985 issue of SFJ, although I do not hold SFJ accountable for ad contents. The ad states that geese are "wonderful for cleaning out grasshoppers, bugs, worms, grass and weeds". Geese will eat grass, some weeds, grain and some fruit, but they will never eat grasshoppers, bugs, worms or any kind of insect. An uninformed person purchasing geese to deal with an insect problem will be very disappointed and misled.

Yours Truly,
Arando Hashimoto
Red Sun Farm
11526 Sylvester Road, R.R.3
Mission, B.C. Canada V2V 4J1

Small Farmer's Journal,

I have just returned from the Blue Ridge Draft Horse and Mule show at Ferrum, Virginia on July 27. There were a lot of fine animals, local folks and fun. I thought it was a great idea for the DRAFT HORSE JOURNAL to offer"The Draft Horse Primer" as a prize in the youth classes — more of that type of useful, encouraging award needs to be given.

I waited through most of the day for the halter classes to finish and the performance classes to begin. Most of the folks who showed for 'conformation' left and the WORK horses and mules stayed to show their stuff. A question came to me as I drove home: Why aren't there performance classes, which are based on skill and are not breed specific, so that anyone who wants can compete and be just as recognized as the animals which are judged for their looks?

If you think about competitive shows for other animals they all have their 'performance classes'. With dairy animals it is based on production, for sheep it is wool quality, riding horses have most classes based on performance, and dogs are a most notable example. For dogs there are three levels of obedience work and three levels of tracking — all based on skill — as well as the breed shows which concentrate on conformation. How is it that the Draft Animal has been left to be bred for looks when its primary purpose is to provide motive power? That is what the shows are saying: produce animals that meet a minimum criteria of looking like they can work or looking good pulling a wagon while the horses that work for their keep and have skills are left to compete in 'fun' matches.

Please don't get me wrong, I'm not against the conformation classes — and I am not saying they have no skills, but I would like to see a formal way to compare one animal to another based on performance. This type of competition might encourage more breeding for working draft animals, and their conformational qualities. At present the only way one can make a breeding or purchasing decision on skill/performance ability is to see the animal work and that is limited by time and distance. If one were to go by advertisements and owner recommendations then practically every horse and mule alive is 'broke the best', will work single or double, and has no bad habits!

Editorially there has been much bemoaning the disservice done to the breeds by "Showring" breeding. If more people are going to be attracted to use draft animals (which is the only sustainable approach to agriculture) then a reliable, honest method of breeding and purchasing horses is needed. If something is being done on this front: by whom? If not, why not? I'd be willing to put some time into it if there is an interest.

Harry Wm Groot
Hiwassee, Va.
(note this letter was sent to SFJ and the Draft Horse Journal simultaneously LM)

Dear Harry,

Your concern is shared by many. The draft horse breed associations are not a homogenous group and it is difficult or impossible to get them to agree amongst themselves. There are some strong differences of opinion from breed to breed as to the future of the draft horse. The Belgian, Percheron and Clydesdale associations are pretty much old guard institutions with Percheron being the only one to pay lip service, today, to the working future of their breed. The Shire association is peopled by many newcomers and working hard to get its internal house in order. On top of that there continue to be heated arguements on the subject of 'English vs. American — Hitch vs. Work etc etc. The Suffolk association is pretty quiet and fairly small (meaning limited budget) but certainly devoted to the work conformation that is integral to the breed's specifications.

In my travels I have found that the prevailing sentiment of those who hold the reins of power in the draft horse breeding and showing circles is that there is NO money in breeding work horses therefore there can be NO future. If fashion were to result, by coincidence, in a conformation which was superior for work many show people could care less. But, when faced with the reality that a work horse price is many hundreds of dollars less than a hitch or halter horse price they will not chose less money.

But as you have suggested in your inquiry, there is good hope for change. Take the quarter horse for example: there are very sophisticated performance trials for cutting cattle (a work for which the quarter horse is well recognized) which result in complex scoring and awards which leave little doubt as to which are the superior performance animals. The result is a dramatic increase the value of the individual and its offspring. I may be sticking my neck out but I would hazard to guess that the top cutting horses are worth at least as much if not more than their halter class counterparts. I know there is a great deal of intelligent work being done to breed for and train superior cutting horses and it comes down to money. If you get a winner you've made a bunch of money. But in all fairness I should add that there are many people who breed and train cutting horses out of a love of the sport and the animal with no eye to monetary reward. It is fair to ask however if they would be doing it at all if it weren't for the prestige that such competition affords. And prestige has a way of being a close shadow to money.

I would love to see some sort of competition devised which would clearly demonstrate the range of characteristics and abilities that we know the draft horse is capable of. A competition which did not subject the animal to extreme mental and physical risk. But it would also have to catch the fancy of the sportsman in each of us. LRM.

Dear SFJ,

Congratulations — to both of us! You for surviving and keeping the Journal going. Me for surviving this year and keeping my Pt. Mackenzie Farm going. Someday — when I get my finances (and act together) I will send you pictures of my 300 acre "Homestead" that I started in 1982 with $1,000.00, an old station wagon, and a small shetland pony that I used to haul fence posts and rails out to sell for $1 each. Today I have 208 acres cleared with 120 acres in Oats. The story is almost as interesting as yours with SFJ, and the story about the Bear Paw Ranch in Washington State.

...keep the Journal going and show us some pictures of publishing a Journal of this size on the kitchen table. Are the horses allowed to put in a neigh or two?

Pony Lady, E.M. Haines
Pony Lady's Homestead
Pt Mackenzie Ag Project
Palmer, Alaska

Dear Pony Lady,

The horses around here serve as color consultants, drama coaches and choreographers. We weigh their neighs very carefully. LRM.

Small Farmer's Journal,

I enjoy your magazine very much but there is one thing missing. I would like to see all addresses in the Letters section have a full address so if you wanted to write to someone and tell them you enjoyed their letter or comment on something they wrote you could do so.

When I first subscribed to SFJ I wrote to a person & commented on their letter & we have been Pen Pals since then. Then later I wrote to a Lady in Florida & explained how to build a weed cutter to be pulled by ponys. We are still writing & exchanging ideas. I love to write to people from different parts of the country & get ideas from them & pass on some of my dumb ideas.

Lealen Larremore
Circle L Cue Ranch
Route 1, Box 129
Holdenville, Ok 74848

Dear Lynn:

For the past two years I have been planning to write SFJ about our farming enterprise. Each time I start to prepare a document I get sidelined. Most recently, I thought the analysis put forth in "In Search Of Excellence" would be worth your review. Our farming experience is exciting. This is not to imply that everything has turned out as planned. Then on Saturday, Sept 22, I received my SFJ to learn of your tragedy, all the information I began writing became unimportant. To let you know we care, however, is important.

In some small way I think I can relate to you to some degree, having two small sons ages 5 and 3. My wife, Jeanne, I am sure knows what you are experiencing having gone through a similar experience with her brother. Life is so delicate and we tend to take so many things for granted. My honeybees constantly remind of this.

The influence that SFJ has had on our family is great. We are attempting to establish a small business on our farm: to offset the loss of Jeanne's teaching salary when the boys arrived.

We had been reading SFJ for sometime, and when "Ten Acres Enough" was first advertised we obtained a copy. The philosophy projected in this book is certainly a part of our truck farming operation.

Sincerely,
Jim Counts
Warrensburg, Mo.

Dear Friends,

Sometimes I wonder where you got the word "brichen" for that part of a team harness.

When I was a young man and working horses all the harness catalogs I ever saw called them "breeching" harness.

I wonder who coined the word "britchen" for those certain straps and buckles.

Of course I realize that since I have always lived in the central states, Illinois and Nebraska, I am not acquainted with terms used in other areas.

For instance a man raised in Texas said where he came from they used a "breast yoke" instead of a "neckyoke". Just wondering.

Sincerely,
R. Prescott
Mount Morris, IL.

Dear Mr. Prescott,

I have long marveled at the variety of names given harness parts and designs. There certainly are patterns that point to strong regional differences, however, most probably due to the nomadic nature of much of America, there is a great deal of confusion even within strong regional patterns. For instance, we continue to receive mail from individuals in, from and unrelated to New England argueing that all previous names and descriptions of New England (or Yankee or Boston) harness are totally incorrect and that the real truth is... The truth as I see (which is subject to perpetual revision to prevent foot-in-mouth-itis) is that there has never been any homogenizing or standardizing force (or definitive and generally accepted literature) to NAIL DOWN what harness parts should be called or what harness styles should be called. My educated guess with regard to the breeching vs. brichen vs britchen question would be that they are most probably the result of honest people in far flung corners attempting to spell out what they are sure they heard some one say.

As a side note: I remember a discussion some years ago with a young man from Los Angeles, Calif. who was very insistant in his efforts to correct me. He just knew that the stuffed round leather thing most of us call a collar was in fact the "neckyoke". When I drew him a picture of a neckyoke and asked what he would call that he said with a smile, "Why, everybody knows that's a swingletree!" Which reminds me of one of my favorite sayings "remember, wherever you go, there you are". It is certainly true when talking about harness parts.LM

Dear SFJ,

Congratulations on putting out such a great magazine. The SFJ is an inspiration to my wife and I on our small horse farm. Working with our Belgians is very rewarding but every once in awhile it gets frustrating also. Your magazine let's me have the strength needed to perservere.

I think it would be a good idea to print up an article on safety using the big horses. Are there any helpful ideas that teamsters can use if we have to work alone or it we have only limited help on the horse farm? I love spreading manure on our farm but so many times I have to go out and work alone. An article on farm / draft horse safety would be appreciated.

Also I feel promotion and advertising HAVE to play a major role in the draft horse business the more people that are exposed to these wonderful big horses the more draft horse fever will expand across this great country or ours. Your magazine and other publications play a great part in helping with this.

Here is an idea the Arabian Horse Registry of America has made a color film called "Drinkers of the Wind". It is an excellent 20 minute "advertisement and promotion" of their wonderful breed. This film can be ordered free from Modern Talking Pictures Service, 5000 Park St. N., St. Petersburg, Florida 33709. I see no reason why the big draft horse registries and associations could not organize their funds and put out a promotion film on the heavy horse. I know at schools and county fairs this would go over in a big way. Your magazine could put this idea in their heads. In your Summer 85 issue you had a page devoted to an old Percheron Association Ad. This type of ad can only help promote our love of the big breeds.

Thank you,

Bob Reintgen
Greensburg, Pa.

Dear Sir,

If you are wondering why I have not renewed my subscription before now; ONE money got a little short. But, TWO and most of all I got tired of reading what was going on out west or up in New England. I am a farmer who farms with horses here in Kentucky. Would sure like to read about some of us who farm with horses around here.

Love
Nick

P.S. I do think what you are doing is great.

Dear Nick,

Welcome back and thanks for the challenge! I know there is a lot of good and exciting stuff going on in Kentucky, Tennessee, Alabama, Georgia the Carolinas and other parts of Dixie but we have had such a difficult time getting to the information. But that's our job and we've not done it — as you pointed out. So I'm going to stick my scrawny neck out and make you a promise and a counter challenge! The promise is that I will personally sneak into Kentucky at least twice in the coming 12 months with a camera and a tape recorder with the purpose of extricating the best info I can get even if I have to use the tactics of "jungle journalism". The counter challenge?: send me some photos! send me some news! send me some stories! and DARE ME NOT TO PRINT THEM! Meanwhile if you are out plowing with your horses and you see someone laying along a fencerow with a telephoto lense balanced on the bottom fence wire DONT SHOOT! LRM.

Dear Lynn,

We have a small piece of ground in South Central Pennsylvania. We have had home dairy products either from our first Jersey 12 years ago, our goats (our 2nd was allergic to cows milk) or our latest Guernsey (he outgrew his allergy).

We have worked hard trying to make some profit from our land. We have wondered (and hoped) if there is a living to be made by keeping 6 or 8 cows. Have you or any of the readers ever heard of some one trying small scale dairying? I would be very grateful for any information. I enjoy every issue. God be with you.

Sincerely yours,
Stephen and Carol Moore
Rd 2 Box 159A
Fairfield, Pa. 17320

Dear Stephen and Carol,

I am certain that you will receive letters from SFJ readers with all kinds of observations about small scale dairying. I might add a few. Yes, I know of many small dairies with from 6 to 20 cows. An income can be made from such enterprises. The difficult part of the equation is what you mean by "a living" balanced against your fixed costs of operation (i.e. mortgage, taxes, etc.) and your preferred standard of living. Another part of the question would have to include your family's work preferences. Dairying is an intense, never-ending occupation which some people tire of. (I happen to love it dearly.) The best opportunities in small scale dairying come from working a little longer, harder and smarter and either doing some small scale in house processing (Cheese etc) or direct marketing. The plan I enjoy best is when there is a diversity of profitable uses for dairy products which includes the raising of bucket calves, pigs, poultry, the making of cheeses, plus the sale of liquid milk.

Many of the Amish dairies in Lancaster are 8 to 12 cow farms. It might be worth your while to try to get an invite there for a question and answer session.

There are so many factors to consider but I have found that income from small dairies have run from $800.00 to $1,500.00 gross receipts per cow per year. Whether or not you make anything will depend on how much you have to pay out. Very best of luck to you. LRM.

Dear SFJ,

We have received your magazine for 2 years now. Really enjoying it. Using many articles as guidelines to go by. We have 160 acre farm, with 3 teams of Percherons. We have used horses now for 3 years. We plow, plant, cultivate, haul manure and log with horses.

But, was very disappointed with the Summer Quarter. It is our opinion that a magazine featuring practical "horse"-farming should do THAT! The article "Old John Deere Tractors" wasted 8 pages in this quarter plus those in part 2 of next quarter. Those pages could have contained information on present day horse farming. Not, a simple reprint of an old John Deere manual.

We are interested in finding different and maybe better methods of operating with horses. Although we do have tractors, we can go to a dealer and get a manual, as of yet no manual has accompanied any of our horses.

Sincerely,
Misty Hills
Robert and Donna Miller
Finksburg, Md

Dear Robert and Donna Miller,

Your letter sounds very angry and certainly deserves a response or reaction. First of all I want to say that we have always tried to be sensitive to the wishes and needs of our readers without whom we would not exist. What YOU don't like and what you need are two pieces of valuable information to this magazine.

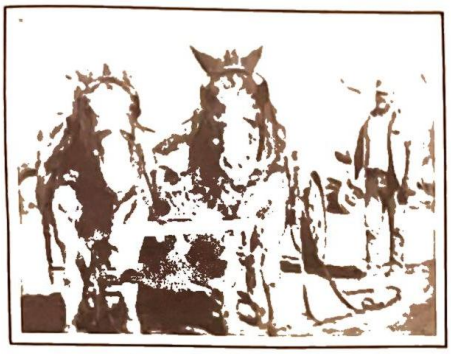
Your letter is the ONLY negative response we have had SO FAR to the article in question. We have had dozens of positive reactions. The decision to run the article was the result of some careful thought given to MANY requests for this information. I do not say that by way of excuse. We MUST be open to the possibility of error if we are to work honestly to maintain the editorial balance you have all entrusted us with.

When trying to decide about this article I considered some information which may be of some value to you: With this issue we will have published 2,880 pages of articles. Of those horsefarming reaches deep into 1,400 pages! And tractor information will have touched 12 pages.

Small Farmer's Journal carries (and will continue to carry) a strong, sincere focus on practical horsefarming. But it must also carry any and all pertinent and valuable information about human scale agriculture and the life and values it affords.

If the Journal readership were to move in force to block the publication of certain catagories of information, any decision to continue publishing would have to include a careful response.

I think it was Abe Lincoln who said that if you could please most of the people most of the time you'd have a heck of a franchise. We consider ourselves to be awfully fortunate to have pleased a few people for a little while. On the continued question of tractor mechanics and internal combustion information I put this plea out to all readers — Should we include more info on the subject as quality and content merit? Or should we not? If I don't hear from you I'll just use my best judgement until I do. And thank you Robert and Donna LRM



Duane Fish and his team

Dear Lynn and Small Farmer's Journal Gang,

Midst all your grief and unhappiness you turned out a Blue Ribbon Journal and I truly enjoyed reading the letters. Your father whom I would like to know really paid a fine tribute to Ian.

The letters you print are great and more would not hurt the Journal a bit.

I wrote to the people about the spreader. I could identify it and was able to tell them of several available for parts.

I also wrote to the fellow who wanted log skidding contest info, plus I invited them both to our wagon train...In the notice about the wagon train you spoke of me as a friend of the Journal and I enjoyed that description for I truly am a friend and supporter.

Most Sincerely,
Carroll B. Stowe
Colrain, Mass.

Dear Lynn,

...Here in Mali things are progressing slowly. I'm trying to write up an animal traction program for oxen. Any help or advice would be appreciated.

God Bless,
Phil Michaud
S E C I D
Bamako, Mali
U S A I D
Wash. D.C. 20523

Dear Phil,

If you were to send us some specific outlines of the animal traction program you envision perhaps there are resources within the Journal readership to help you with your project. Keep gentle but hang tough my friend.LM

Dear Small Farmer's Journal,

We have not been able to subscribe to SFJ in 3 years. We wish to renew at this time.

We live in central Wisconsin and are full time SMALL dairy farmers. Do not let anyone say "it cannot be done"! We started out 6 years ago with 3 cows and a dream. This spring we were able to purchase 17 acres and buildings for our family and 22 cows. We live simply; the Amish have been a great inspiration to us both spiritually and economically.

Anyone interested in small farming should not be disheartened. It is possible if one is willing to make sacrifices. It is my opinion that for the person wanting to get into farming this present agricultural dilema is a benefit as things (equipment, livestock, etc.) are very inexpensive. As an example, we purchased a team of mares, 6 and 2 year olds, for less than half of what we bought an old team of geldings for 5 years ago. We also just purchased some bred heifers for $750.00 a piece. With the breeding behind them they would have sold for $1200 — $1300 4 or 5 years ago. Even though milk prices are dropping, if a person lives simply there is still a profit in milking cows.

We would enjoy a visit from anyone who is coming through Wisconsin. Also, we would like to correspond with any Christians interested in the Amish way.

May the Lord bless you,
Duane and Margot Lottig
Rt 1, Box 187
Iola, Wi. 54945

Dear Lynn,

I have been receiving SFJ for about two years now. I would like to say I really enjoy it. We have a small farm and use our horses to farm with and also use them for Pulling. We have four Belgians. We have a pair of this year's colts that are half sister and brother. We have a coming 4 year old mare and a coming 6 year old gelding. We just started pulling the mare and gelding this past summer. We had a lot of fun and met a lot of nice people. You can always find someone to give you tips and help. Asfor the farming end; we plant oats and corn. This keeps us real busy because I also work in an Auto Factory and drive 55 miles one way to work so by the time I get home it doesn't give me a lot of time to get something done. But I do have a 14 year old son and a 17 year old daughter that are real good at working with the horses and they do enjoy it. So that is a big help.

Keep up the good work on the Journal as draft horses are becoming more popular every day. Back 15 years ago I had draft horses and I don't believe there was over 5 teams in the county I lived in. Now we have a Draft Horse Club called the 19th century Wagoneers and in two years time we have grown from 5 families to 18 families plus there are others in the county with horses who do not belong to the club. Our Horse Club is real active as we have outings all year starting with a spring Plow Day then parades and our club put on the Draft Horse Show at Ithaca Ag Expo, plus our week long wagon train trip and an Oat threshing, Corn Shredding Day and Sleigh Rides in winter.

If you ever get to Michigan look us up. We like to drink coffee and talk. We are located at Elm Hall about 12 miles west of Alma.

Yours,
Duane Fish
Elm Hall, Mi

Dear Lynn,

Having bought our farm two years ago and moved here in Feb '85 ...about a year ahead of "THE PLAN"... we've become very good at paring down to our necessities of life and recognizing our blessings. SFJ is both — a necessity and a blessing! For six years now, Gary and I have try-out "country magazines", "farming" journals, etc. etc. and have settled for alot less than what we really wanted.

Then...as I was burning trash I remembered I hadn't clipped the ad for the mammoth jack stud...Oh, the fates were watching out for us! To make a long story short...we spent that afternoon at Clarence and Eileen Koch's farm. Not only did we check out Clarence's jack (for my foxtrotter), we checked out his (terrific) horse barn, his Belgians, his mules, his tack & harness, his trophies (pulling), his horsedrawn equipment, the covered wagon he's building, Eileen's flowers (fabulous) and... he loaned us every copy of SFJ he had (1979 to present).

What a day!

Gary's had his heart set on farming with a team for years — preferably mules (like his dad did years ago). We have quite a collection of John Deere horse drawn equipment and harness...thanks to Clarence's advice and council we plan to learn with an older farm team of horses. (We can graduate to mules.) We're saving our money for Spring.

Here are photos of the recent threshing the Koch's had at their farm. It sure was a grand day! ...200 people there off & on. Clarence had 5 acres shocked and ready to go. Had 4 teams bringing in jags (3Belgian, 1 mule team) and a team of Belgians pulling wagon loads of folks back & forth to watch. Everybody was free to watch and/or work. The thresher was a real beauty... looked like new.

It was my first threshing and you can betcha it wont be my last! We got there early, stayed late, and met so many horse-farmers I can't remember all the names! Lynn, the next trip you take, you'd better swing through the Missouri Ozarks and meet some of these fine folks!

Sue KoHwity
Bittersweet Ridge Farm
Falson, Mo.

Dear Friends,

Almost always while reading SFJ I get excited and declare that I must write and comment on something or another; however time passes and rarely do I ever get around to it. I am temporarily laid-up, so now have the time...

I want to commend you on a very well-done magazine. It is the only magazine that gets read multiples of times by the same person in this house . . . namely me. I appreciate your basic philosophy as well as the way it is expressed in your magazine.

Secondly is a comment to readers who wonder what to use for a particular job — horses, oxen, mules, or Tractors. My advice, especially to beginners, is to use whatever is available to you. Don't be a purist at the start. You are taking the chance of losing your farm while you wait for that beautiful team of perfectly matched draft horses you saw at the show. My first team of draft animals were a heifer and a steer born on the same farm. No big beer companies beat a path to my door to include "my team" in their hitch; but the animals did the work I asked of them. The heifer, as an older matron of the beef herd has paid her way twice over. It would be hard to beat that first team for an inexpensive introduction to draft animals. Later on I found myself boarding several riding horses. While they were here, they were broke to harness and worked. Although they only weighed 1,000 a piece, they hauled wood, plowed, harrowed, planted corn, graded roads, etc. The work in harness greatly improved their wind and tractability under saddle.

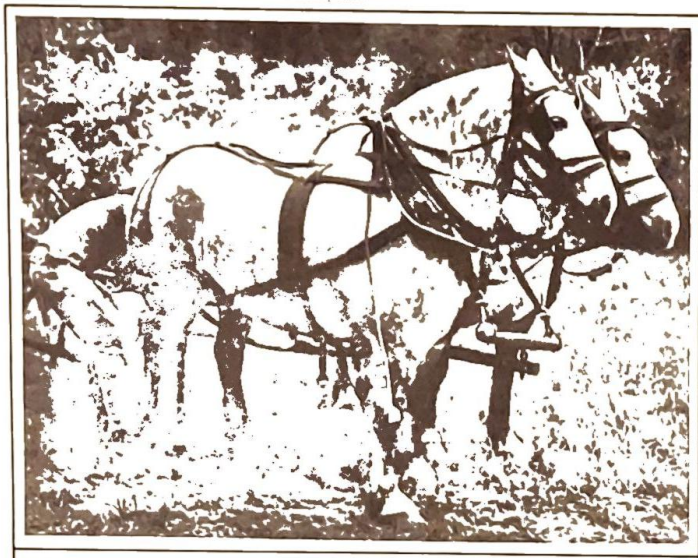
Lastly I want to request that when you put an article in the SFJ that you include a note as to where one would write for more information. Guess that's about all for now. Thanks again for a great magazine.

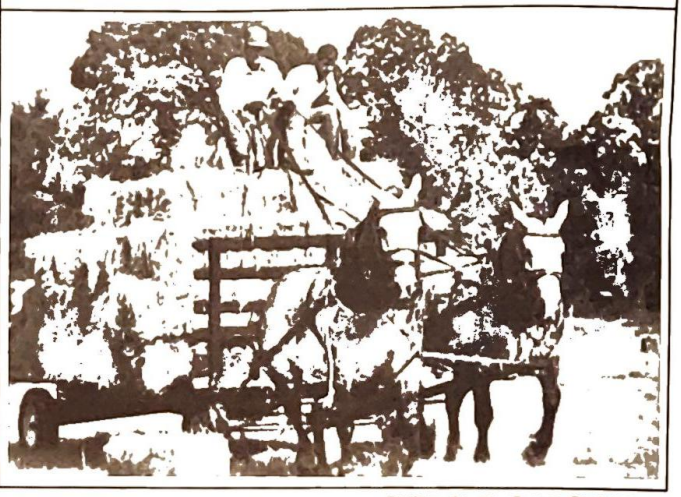
Sincerely,
Stuart Abbott
Atlasta Farm
Buckfield, Me.

READER PHOTOS *FROM.....*

TEXAS

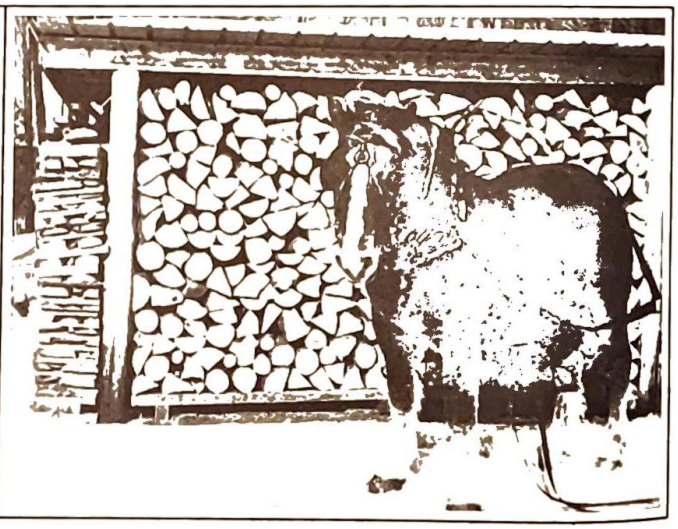
Homer McQueen and his handsome Percherons from Grand Saline, Texas. The 4 abreast has a Dallas T.V. crew on board. Homer said his corn crop almost drowned out last year.

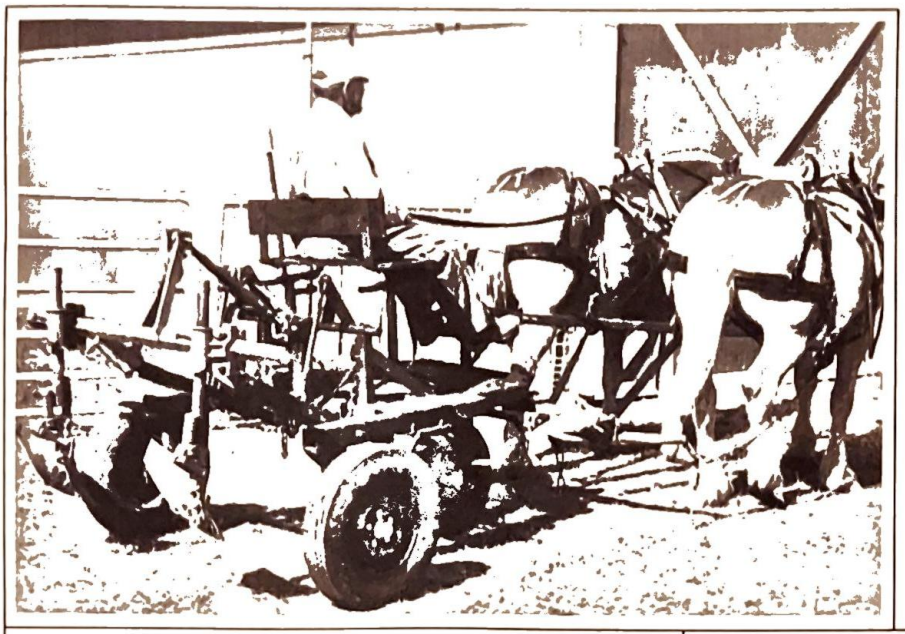




Below; two photos of Randy Hanish's 2½ yr old Belgian gelding Skeeter with Randy and his 3 yr old son Luke all from Park Falls, Wisc.

WISCONSIN



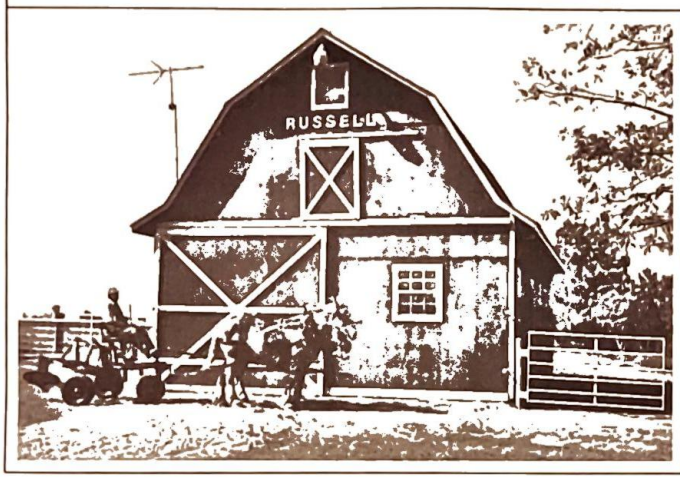


MISSISSIPPI

Dear Sir.

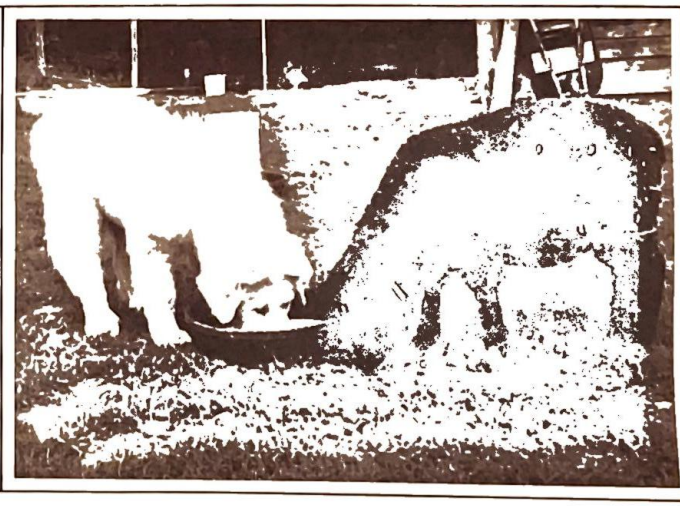
I am 72 and have farmed with horses and mules all my life. This spring when I started plowing corn ground I was not able to hold out as I have in the past. I read about the three point hitch cart in your SFJ. My son, Kenneth and his wife, Renee drove to Ky. and brought back a new hitchcart and plow to give me as a present. With this cart I have had no problems in changing 3 pt. equipment into horse equip. I have used the cart with two and three horse hitches. ... I find it as easy on the team as the old horse drawn tools. I have put out 20 acres of corn and a small sorghum crop with no problems except one broken shear bolt on the new plow. I would sure recommend REED's Three Point Hitchcart to anyone who enjoys farming with horses. It is an ideal piece of equipment. Photos enclosed.

Yours Truly,
Raymond Russell
Poplarville, Miss.



OKLAHOMA

Below: Susan Giargiari, of Midwest City Oklahoma sends us these two photos. On the left is "Toyota" the expectant pig cooling off in her pool. And on the right is "Shamus", a 4 month Pyrenees being raised with lambs. Susan notes, you have to watch out for ewes w/ lambs as they will belt the young pups around, protecting their lambs. These dogs can get hurt when they're little. Pyrenees are one breed of dog which can be trained to protect sheep.



RURAL RAMBLINGS

agrarian beginnings...

by Ralph Miller

I don't seem to remember the exact details but they tell me that I was born in Wisconsin. You see, my Mother lived there, so I guess it makes sense. My earliest recollections still indicate it as my native state even though I have been somewhere else for close to fifty years. They called it America's Dairyland then and I believe they still do. I could have called it something else although I don't want to be harsh. I suppose the 'Ice Age State' is not strictly factual; just a personal opinion.

I never learned exactly why, but I used to hear references to 'the Great Wisconsin Glacier'. And there were always people around to remind us that our soil, our lakes and streams, our hills and valleys, all our topography in fact, was a legacy from that departed visitor from our long ago past. I do know that the ice age was real, that glaciers covered a large part of Northern America — but why the The Wisconsin Glacier?

It could have been that it reached farther South there, lingered longer and thawed later. I remember winters, as a boy, when I believed the ice age had never left. (Even no longer ago than last winter I wasn't really sure that it wasn't still alive and moving to Palm Beach). It did get cold and it snowed some too. That's the chief reason I haven't set foot in the state in Winter since 1939.

The prolonged visit of the Great Glacier had produced some benefits, or so they told us. Being in its path had an affect on Wisconsin farming. The peculiar soils produced by glaciers are called Morains and ours was the Kettle Moraine. Although I don't recall the significance of that name, I believe it is less important than the fact that it constituted much of the soil that made Wisconsin a fine farming state.

I've never paid much attention to what may have happened in the Southern Hemisphere during the last great ice age, but as might be expected in the northern half of the globe it wasn't confined to North America. As seems logical, glaciers pushed down across Europe, Asia and Eurasia at the same time. Ice drove most everything before it starting possibly 27,000 to 25,000 years ago. It lasted until some 12,000 years ago and if it runs in 13-15 thousand year cycles we have a few years left until it returns.

Great herds of herbivouous animals stayed below the glaciers in Southern Europe and Asia and across the land bridge down into the Near and Middle East. Where animals went, the hunter followed and when the ice gradually thawed and retreated, in their natural order the herd, then the hunters went back with them — mostly that is.

On the upland plateaus and slopes of Anatolia grew grains: the weld einkorn and emmer varieties of wheat and a two row wild ancestor of our barley. In this column we have often speculated at just what point Ab, the hunter became Urb, the farmer (or was Rube the farmer and Urb the city feller even back there?). Of course it did not happen all at once in just that way, but evidence says that, in small numbers over extended years, man became food gatherer as well as hunter then gradually moved on into creating domestic breeds of cattle, sheep, pigs and goats, and took to planting and growing grains himself. Now that happened with near certainty there on the uplands of the Near East from Anatobia to Afghanistan and South out of the Caucasus as far as Arabia. There were more forests then, more grassy meadows and probably the rain fell in greater amounts than currently. When these conditions worsened man found his way down from higher, cooler altitudes bringing his first agricultural efforts with him. The glaciers, with the attendant migration of the herds had brought the earliest farmer to the Near East. What would refine his art and (agri)culture now was the river — or rivers. Mesopotamia — the land between the rivers;

The Tigris — Euphrates river system and it's tributaries and all that area served by it. Mesopotamia — cradle of civilization, birthplace of Great Religions, great city states art, culture, language and writing. All of this is true and historically important, but all of it developed subsequently and as a direct consequence of those earliest halting steps to farming.

The growing, the milking, the preserving of those grains, brought down from the higher ground, became the basis to support the populations that would arise. The domesticating of the cow, sheep, goat and pig meant that hunting with its necessary nomadic wandering could be abandoned as the source of meat protein. Over a time cattle and goats began to supply milk and dairy products as well. The wolf population that had followed the great herds, had long ago yielded certain pups trained as hunting dogs and now could be converted to work and guard the domestic animals.

Down through the centuries in this arena man tamed the wild asses and certain horses as beasts of burden and eventual transport and motive power. Cattle became oxen and these changes were depicted in the art legacy that was left us. Earliest art forms, first scratchings, then charcoal drawings and primative paintings, showed wild herds being pursued and dispatched by hunters; this gave way to more imaginative paintings and bas reliefs detailing animals pulling plows, dragging sledges and then wheeled vehicles. We have, too, cows being milked, with the milk being poured through strainers into jars by dairymen, as well as grain shown being planted, harvested and stored; all the facets of the early to middle years of the real development of agriculture.

None of this happened overnight — more like 4,000 to 5,000 years but it did develop and it happened first there in the land between the rivers. Many city states, city nations grew up there, including Sumer, Ur and later Babylonia. All of them developed as a direct result of that basic fabric of Agriculture that grew to support city and nation populations.

It may smack of the chicken and egg conundrum, but my feeling, borne out by much of what we know to be basic facts, tells me that such developments would not have happened or would have taken much longer if the descendants of Ab, Rube and Urb had not gravitated down to the river valleys. Even in those remote times rivers and farms, farms and rivers were made for each other.

Water is an essential for sustaining live on this planet. Relatively abundant water breeds and nourishes more abundant life forms. Aside from the obvious needs for drinking, watering stock and growing plants, water is an important part in the breakdown process of rocks, humus and minerals, and a basic carrier for both the most microscopic forms of life and the nutrients to feed them.

In addition water, more particularly, rivers provided a means not only to get from place to place, but to transport goods and animals. That was a prime factor in the spread of agriculture and civilization back there in Mesopotamia, as it would continue to be down the years in Europe, Asia and eventually the New World. Everywhere that proliferation occurred it tended to follow the original pattern. First the hunters and pioneers giving way to settlers, farmers and then cities and other appurtenances of civilization. For one thing hunters and the first farmers seemed able to get along without government. Settlements, cities and civilization meant government in some form almost at once.

As part of the pattern almost invariably such spread seemed to start out up or down the rivers first, widening across the valleys and later the uplands. Where migrations followed game trails overland, they usually encountered one or more fertile river valleys at some point and thereby settled and centered around a farming community which developed there.

With the exception of Mesopotamia, it is not so easy to delineate, to show exact times and stages of orderly growth in other parts of the world — not at any rate in the earlier stages. Not so in America. We're not talking any 5,000 years here. Our old Earth has not yet made 500 passes around the sun since one Cristoforo Columbo, sometime of Genoa, Cadiz and Seville, stumbled across a stray continent on his avowed journey to China and the East Indies. Behind him, too, came hunters. Mostly gold jewels and other loot was the object of their early search, it must be confessed, but fisher folk and animal hunters followed in due course and inevitably the farmers.

Tobacco on the James and, York in Virginia. Cane, Cotton and Indigo up the rivers of the Carolinas, Georgia and the Gulf states a bit later. In New England and the North Central Colonies there were smaller rivers, valleys and farms, until the burgeoning population spilled over the Alleghanies into Western Pennsylvania, Western Virginia and Ohio and Kentucky. The pattern kept its shape down the Ohio, up the Mississippi, the Missouri until the overland Oregon Trail led it here to our own Willamette Valley.

There are very real, if simple, reasons why farming followed the rivers from Mesopotamia to the Columbia, the Sacremento and San Joaquin along the Pacific Coast. Not solely the ease of movement and transport along the rivers, is usually richer and deeper. Rainfall tends to be heavier and more dependable; if it falls there's always water for irrigation. Of course it isn't all roses. Unless you or your ancestors were at the forefront of the migration, acquiring river bottom land can be expensive. And too much of any good thing can bring trouble.

Floods not only deposit layer after layer of the best alluvial soil on the flood plain, they're also capable of wiping out the careful toil of years. These days of instant, world wide, on the spot, broadcasts, all of us share the agony of those along the river who lose crops, buildings, homes (even lives) when the rivers inevitably rise. Being mortal and therefore prone to baser instincts as well, those of us who scrabble among rocks, thin soil and steep slopes, secretly and smugly, hug our satisfaction in not being caught down there in the rich wet river bottom. Of course the floods pass and the survivors plow again to the waters edge, gambling that only good numbers will turn up next time. And we poorer or more timid beings look with envy — until the next flood.

Rivers as always attract farmers, settlers then cities. Cities bring congestion, pollution, problems, but they also provide markets and for a time at least the cities, farms and the river manage to coexist to their mutual benefit. That they eventually do harm to one another has become all to evident. Pollution of rivers is not exclusive to cities. Chemical residues and erosion from farms play their part. Urban sprawl usurps valuable farm land. Then in spite of check dams and other flood control methods Ma Nature slaps farms and cities alike with the consequences of disastrous floods. There are no simple solutions except a renewed effort to recognize the need for coexistence. Perhaps that is the basis for this current ramble.

If you want to tax us with rehashing of subjects or travelling down old roads, you're not so far wrong. And yet it looks to me, as I ramble about this vast land and watch the current scene, that we have learned so little. "Who has not learned the lessons of History is condemned to repeat it." Is that Santana? At any rate it is a credo that I find doubly important the older I get. If we are to learn from our mistakes, and can't remember, we must be reminded of them.

To study and present a valid picture of early man, the archeologist largely relies on 'midden heaps.' Thats a four dollar phrase and a more common way to put it might be garbage dumps. The point is made I think — to learn about any era, study its discards, its errors and the things worn out or thrown away.

Until garbage dumps appeared man was still a nomad on the move. Sometimes there is a trace of him in a cave where he might squat for a time, but only so long as food was available, then it was move again following herds, or collecting the rodents, wild berries, nuts and grasses which made up his diet at that point. When refuse piles showed up it meant he had settled there and a study of those discarded artifacts indicated lifestyle. Hunting arrows and skinning knives indicated that he was still depending on hunting for a good part of his livlihood. When those gave way to sickles, querns, mortars and grinding stones it told of a change to the basics of beginning agriculture. Later studies center around graves, tombs and cemetaries and the qualities of the luxury items buried therein, Beads amulets and jewelry was the indication that men had progressed beyond simply feeding himself.

Just as it is possible to trace farming from a single stick which was used to poke seeds into the ground up to the latest, largest and most sophisticated farm machinery which plants, fertilizes and reaps todays harvest, so too is it possible to trace the steps from a 15,000 year old flint spearhead to the latest in ICBM armed with nuclear warheads. If — and God forbid that it should — the time comes when ICBM's, and ever more sophisticated mass destroyers, are used as more than a threat or power symbol, we can only pray that any poor remnant of humanity, mutant, educated anthropoid or what have you, will recall how to use the sharpened planting stick as well as the spear.

Possibly that won't happen. What is likely is that up the line somewhere a combination of personal, national and international greed and sloth will so undermine the fabric of our vaunted civilization that we will be ripe for new forays by barbarian hordes (from within as well as without) and our descendant survivors will fall back into new dark ages. That's happened often before.

In the 'Letters' section of the last issue of SFJ one of our readers makes the point that small farmers are no "better" than others. He goes on to lump them with all agriculture and details how much assistance farmers have had over the years. A lot of that is true on the face of it, but in practice it hasn't worked that way. Back in our very first column in the first issue, I quipped (not necessarily with originality) that what small farmers needed was not so much assistance as less resistance.

From the standpoint of those starting out, and many of those hanging in there ever since I was born, all those things he mentioned have been fostered and promoted, not to keep the small farmer solvent and viable, but to turn him into another big farmer; one more bastions of agribusiness. We don't so much want government to help us as to get out of the business of helping those who are constantly trying to bury us.

As I recall that quote from Calvin Coolidge (I remember quite well when he became President), he concluded his remark with "The business of Government is Business." I admired Silent Cal very much but if I may be pardoned the question, "Isn't the business of government just to govern?" I think they ought to get out of business whenever possible.

When mobsters do it, we call it the 'protection racket.' They collect exorbitant fees to protect their victims from troubles that wouldn't exist if the mobsters didn't create them. Somehow that strikes a familiar chord. As far as subsidies for agriculture are concerned, practically all of those wind up in the packets of agribusiness adherents. And they aren't all that much unusual. Every facet of civilization, practically world wide, receives such subsidies to a greater or lesser degree. Transportation, manufacturing, education, art, literature but . . . Government handout can also be written government hand out. Just like the protection, racketeers, the benefits are small and unprofitable while the fees are large and unshared.

I don't know a single small farmer who wouldn't rather sell his surplus directly, for cash and in a free and unmaniputated market, than to be told what he could plant, how much he can charge and where his controlled market is. Electricity and paved roads are a convenience we might have had to wait a while longer for without subsidy, but our grandchildren may wish we had been allowed to stick to the candles, oil lamps and dusty ruts I grew up with.

It's undoubtedly true that we tend to blame government for some troubles of our own making. However it isn't exactly biting the hand that feeds us. More like feeding the hand that squeezes us. Consumers pay more for farm products today, true, but that comes because they demand more. They have been educated to ask for the wheat milled, refined, baked into bread, sliced, wrapped and delivered, but the wheat grower is expected to absorb all that before he gets a penny more than he formerly did. On top of that a commission broker and commodities Traders are betting they can make him sell his crop at a loss.

It is a squeeze all right, and the only protection the small farmer has is to stay small and as far outside the 'protection racket' as he can. He can only hope that sometime the mass of humanity will realize that in cutting him down in numbers and aspirations, they are destroying roots. This civilization ought to be looking at Ur, Babylon, Rome or the Maya. They all had agrarian beginnings and when they lost them, they disappeared.

When we can no longer breathe the air or drink the water will we finally get alarmed enough to turn things around? Are we going to learn anything from Bhopal, from Mexico City or those hill villages in Columbia? Probably not; history indicates that we forget more than we remember. Nor do prophets and soothsayers gain much in popularity or profit.

I don't need a crystal ball for the long view. I only have to look at the record. Sooner or later the glaciers will return and if man doesn't blow himself off the planet first, he'll probably survive the next Ice Age too. Then somewhere — along a river most likely — he'll pick up a stick and poke some seeds in the ground. Just a small farmer assuming the burdens of creating a civilization one more time.

THE JUDSON SCHRICK FAMILY FARM; An Exceptional Example.

Photos by Kristi Gilman

I met Judson Schrick in Waukon, Iowa during the Fall Hexom-Sweeney Draft horse sale this last September. He is a gentle, quiet man with a steady gaze. I recognized that look, it comes from sighting a far point to travel a straight path. Serious farmers get that look from many straight passes. But with Judson it came from more than just crossing the field. He had a clear, fixed point as a personal, and family, goal. And his quiet gentle nature seemed to be both the cause and the result of his contentment.

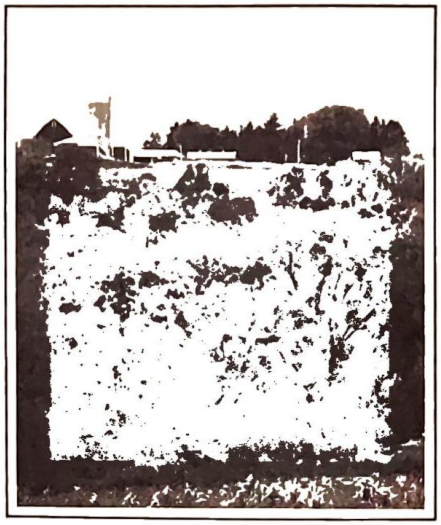
In all the angry, frightened farmer's faces I had seen during this trip across the cornbelt you could feel the scared, mad pain. But with Judson that's not the case. He is not angry, or afraid or worried. Here is a determined contented man. An unusual combination of characteristics but I think they are necessary for today's world.

Judson Schrick was honestly surprised, and maybe just a little embarassed, when I suggested doing an article on their farm. He worried that perhaps there wasn't story enough here. I knew he was wrong.

First of all I want to describe their farm for you. Then later, I want to tell you where they came from, why and how it is that what they've done is an important example for many of us.

The Schrick family; Judson, his wife Carol and their children George Jennifer Sherry and Craig; farm 238 acres of beautiful hill land in Northestern Iowa just out of Decorah. Of their farm 130 acres are tillable with the balance in pasture and woodlot. Theirs is a mixed crop and livestock operation with 15 Belgian horses, 15 hogs, and 28 Beef cow/calf pairs. They have chickens, a Jersey cow, and an ambitious vegetable garden for home produce. And with that combination they make out well enough to put money in the bank each year. The whole family enjoys a rare contentment and togetherness. The teen-aged children are all educated at home. Now, I don't want to let all that slip by too easy...

THINK ABOUT IT! It's 1985 and all across North America farmers are in deep trouble with bankruptcies, foreclosures, divorces, suicides, the worst farm depression most people can ever remember. Agriculture is in one horrible confused state of anarchy! That's what the news media is telling us anyway. And you don't read or hear about farmers who are doing well, do you? You don't hear about the Judson Schricks. Its time we did hear about them. And not because they are an exception



The Judson Schrick Farm perched on a lovely hill with a magnificent view of Iowa farmland.

they aren't, they are an example — an exceptional example. The Schricks are successful and the most important measure of that success is their contentment. They are pleased with what they are doing and how they are doing. And they are doing well enough to save money. All on a relatively small farm.

Small certainly by comparison to the farm they came from. Judson Schrick moved to the Iowa farm three years ago. They came from an 880 acre farm in Western Minnesota where they farmed long hard hours with BIG expensive equipment and could seldom get caught up, let alone, get ahead. They had Belgian horses then but as a hobby. I doubt they had much time for their horses. Judson told me that they were an important part of the decision to move. The whole family wanted to have more time to "enjoy" with the horses. In fact, the whole family wanted to have more time to "enjoy" farming. The Minnesota farm had become unpleasant and Judson made the decision that the family should sell out and move to a smaller farm where, if nothing else, they would at least be able to enjoy the lifestyle. Behind that feeling was the conviction that making the move to a smaller, different type operation would provide them with greater opportunities for success. That notion goes against the grain of everything American agriculture is supposed to stand for. It goes against the grain of 'get big or get out' — against 'specialize in order to prosper' — against 'modernize or fall behind'. Judson followed his own best judgement and made the move to a smaller diversified farm and he's prospering because of that choice.

THE WORKINGS OF THE FARM

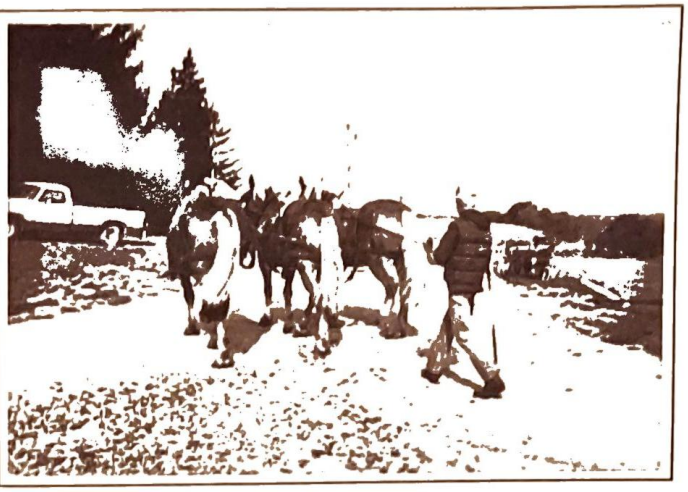
The Belgian horses have come to be a key ingredient on this farm. There are 5 working geldings, 2 working mares, the breeding stallion "Cedar Lawn King 32815" with the balance being brood mares and young stock. Judson said they find they use the horses more and more with a real savings in cash expense. He particularly likes the fact that he's not dependent of outside fuel, in fact he raises his own in the form of the crops he feeds the horses. He does confess to using the old John Deere tractors some, mostly for PTO work. But his first love is working the horses saying he feels closer to God and nature . . . "I can hear the dirt turning and stop and rest the horses without having to explain to anyone." That quote caught me off guard, I'd never really thought about it but I suppose it is true — if you were to ocassionally stop your tractor in the field, turn it off, and just relax and look around and listen, people would probably wonder if you were off your rocker. Yep, I agree with Judson, working the horses is a mighty fine way of going.

The Schrick Hog operation is farrow to finish with 14 sows and 1 boar in the breeding operation. They do not employ any high tec or modern confinement practises as they used to. They raise their own feed and prefer not to use any commercial feeds because Judson said they noticed that the pig manure odor was dramatically less when the hogs did NOT get any. They do not

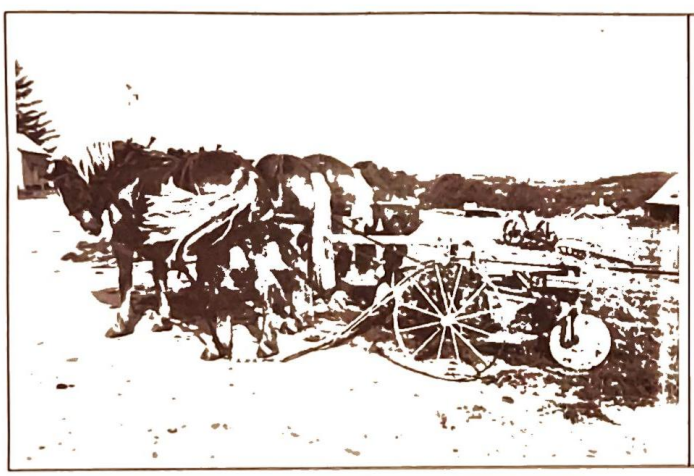
Judson Schrick (left) discusses corn varieties with Lynn Miller. The old model B tractor listens in.

George Schrick (out of view) waters one of the Belgian geldings at the noon break.

Judson adjusts the harness of one of his horses.

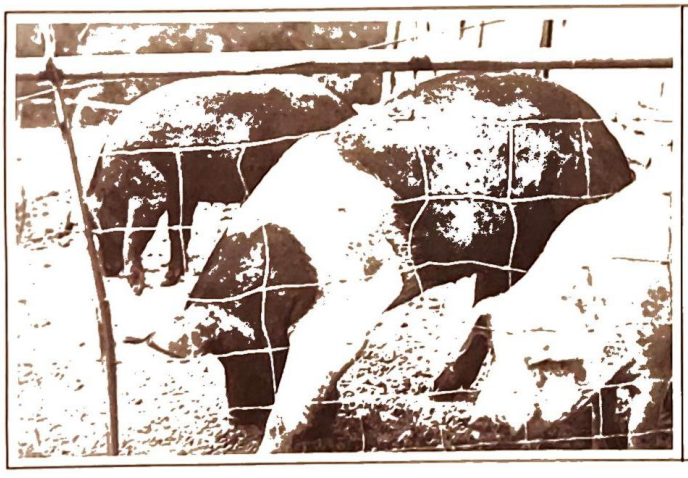


George (age 14) driving 3 geldings. Note the beautiful, well-kept, long tails on these extra nice horses.



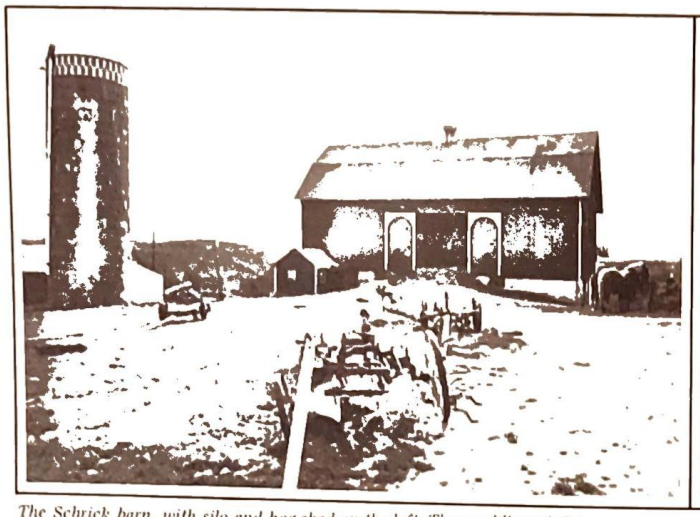
George hitching to an extra nice John Deere sulky plow. These horses see a lot of work and you can tell they are well cared for. Something that's always a pleasure to see.

The Schrick Belgians, George out of view, stand poised and alert. Well trained, well bred horses in top condition — the very BEST kind of farm power.



Three of the Schrick gilts. Again obviously well fed, well cared for, top stock.

Sherry visits with the Belgian herd. The horses are standing in a lower field which disguises their size. This Belgian herd displays that uniformity of type which is the hall mark of a breeder who knows what he wants.



The Schrick barn, with silo and hog shed on the left. Three geldings tied during the noon break.

The lovely, substantial old farm house that is the Schrick home.

The Schrick family portrait; left to right, George, Craig, Judson, Sherry, Carol, and Jennifer. A handsome crew and, in my opinion, a fitting, optimistic testimony to the future of agriculture.

use farrowing crates. Instead they have large (14 foot sq) pens in the barn. These pens are well bedded and Judson says they seldom have problems as there is adequate room for the pigs to stay out of Momma's way. While we were there three sows had farrowed in about 18 hrs. time. Judson said they generally had more sows. They market their fat hogs through normal auction outlets. If more people knew about them I would hazard a guess that they would get more income from these additive free hogs by selling direct.

The beef herd consists of commercial cross cows, mostly black baldies, which have been bred this year to a Charolais bull (last year to a Simmental). Judson is thinking of going back to Shorthorn bulls as he prefers an old style conformation rather than the long-legged style popular today. They sell their calves when about 600 pounds. Their feed, again, is all home-raised.

The farming consists of a rotation of corn/soybeans/alfalfa/oats/clover (as green manure). When we were there 14 year old George was just coming in for the noon meal after contour plowing some corn ground for fall planting. What I saw of the fields exhibited an intelligent caring attitude about conserving and improving what might be a highly erodable hillside soil. One thing I noticed right away during my visit was that every single piece of farm equipment was in tip-top shape and all but one piece was John Deere made. Judson, it turns out, is a real fan of John Deere equipment and proud of the shop he has for repairing and maintaining the tools. All the equipment is either horse-drawn or WWII vintage tractor-type. He has a couple of old "poppin' Johnnies", PTO (older) JD combine and corn harvesting equipment, two real nice JD threshers and oodles of other good old equipment. Judson says he likes the old equipment, enjoys working on it, and has no problem getting his farming done with it. Best part is that he doesn't owe any money on it. (That's an important point — he doesn't owe ANY money on equipment!) Judson says that the biggest part of the financial problems of many farmers stems directly from the amount of money they owe on the biggest and latest technology. He's right.

Aside from a small fuel bill for what little tractor work they do and the expense of minerals and soybean meal there are no real expenses that go into running this farm. What money comes in stays in. Fertility is kept on the farm, with most crops being fed to the stock. Its a great example of how an oft repeated formula for crops and livestock will work well TODAY.

I don't know if I've done the job of telling the important story I see here. It is important, especially so for today. My conclusions haven't changed, they've been reinforced yet again. Those conclusions: A small farm can be profitable and enjoyable. Farming with horses is a dynamic, powerful option for today's agriculture. Farming should never be considered as an industry. Farming is a way of life. and A diversified, mixed crop and livestock operation that takes the best advantage of the interrelationships that are available will gain in strength, fertility, and security with each passing day.

To Judson Schrick and his fine family I owe an apology for I have intruded on your privacy and made a fish bowl of your world. I only did it because it seems so important to share the message. Please forgive me and have me back for supper again real soon. Thank you. LRM.

FARMING AS SACRED WORK

by Will Elwell

As we have recently seen with the threat of Hurricane Gloria, nature can quickly affect the needs and priorities of a society. Survival and food preservation quickly become the main concern. The image of empty supermarket shelves conjures unbelievable thoughts of starvation, of panic, looting, stealing, killing. Tempers shorten when stomachs are empty.

So, it appears that only in the extreme is our society concerned with survival. I think, under normal circumstances, the basic survival needs are more or less taken for granted by the majority of the American society.

Similarly, in gardening, the emphasis toward practicality is distorted if not lost. In terms of our gardening, for instance, practicality meant hardy, nutritious vegetables, open pollinated seed stock, strains of vegetables that were good keepers, proven varieties, etc. Nowadays, however, practicality has turned towards a "facilitated" garden: ie. hybrid varieties which are disease resistant, rust resistant, varieties which produce either long, short, tall, narrow, wide, early, late, round, square . . . . just about anything one could imagine to provide for a so-called "picture perfect," care-free garden.

But I just hope and pray that the "picture perfect" garden is not the ultimate goal that the majority of gardeners and farmers is seeking. Because, if it is, I believe the purpose and function of true gardening is lost. There is more to gardening and farming than simply appearance or production or cost effectiveness . . . . When I pass a vegetable field where there are rows upon rows of acres of perfect looking crops, I am suspicious and suspect some form of chemical agriculture. When I see a farmer's small plot of produce growing amongst the weeds with variation in the quality of the vegetable, I am impressed that perhaps this is a chemicla free, organic farm, and I will be more inclined to stop at that farmer's roadside stand to admire his or her produce.

It seems to me that there are a number of different levels of agriculture: Chemical, Organic, Self-sufficient, and Natural.

Chemical agriculture is the type of horticulture which depends upon pesticides, herbicides, maturing agents, coloring agents, etc.; all the man-made tampering devices which make produce look, feel, smell and taste uniform and "picture perfect." Whether the product is totally nutritious or not is not the concern; nutrition seems to take a back seat to appearance becuase first impressions are what sell the product in commercial agriculture; if your one box of cauliflower looks poorly, it is assumed and expected that the rest of the truckload is of the same condition.

Chemical agriculture exists simply because the vegetable, fruit, grain, shrub, etc. has as its primary function commodity. The produce is a form of currency. So many bags of onions will bring so many dollars on Friday at the market. Thus, the more onions produced per acre, the more money the farmer will come home with. Thus it becomes very difficult *not* to grow more wheat, *not* to use the largest yielding hybrid; it becomes difficult *not* to buy that solution which will eradicate the nutrient-robbing weeds or provide 35% more size or weight.

Money is one of the stronger elements of influence in our society. It is difficult not to say yes to more. It is easy not to say yes to less.

Organic agriculture is the next level of farming. Here a conscientious effort is made by the farmer to produce a quality product without destroying the environment. There is a level of concern also for the health and well-being of the consumer. Here, also, the consumer is demanding more and more quality produce.

At this level there does seem to be a great deal of attention given to the commercial aspects of the process. Obviously, just about any operation larger than an acre is going to require a system of commerce, where produce is exchanged for something else, usually money.

The next level of farming could be considered Self-sufficient. In this particular case, a farmer — or farm family — would consider themselves as "non-commercial." Their farm might produce just as much as there commercial neighbor-farm, but, instead of exchanging the produce or livestock for cash at the market place, they would keep, store and consume whatever it was they raised. In this way, a more or less closed system would evolve on the farm — nothing would be taken away, nothing would be brought in; a self-supporting, self-sustaining ecosystem. Obviously, this particluar system would naturally dictate an organic, non-chemical process. I don't know off hand of a totally self-sufficient family farm in the United States, nor am I sure that such a farm is possible in our present day, western society.

There are people struggling to maintain a certain degree of self-sufficiency on their land, but it is obviously very difficult to maintain such a system within the influences and demands of our society. It would certainly be challenging — and rewarding — to strive towards such a farming/family system.

I think particularly in this area it is most challenging for one — and one's family — to determine for themselves how closely to self-sufficiency they can — or want — to get. Obviously, there is no blue-print for what degree of self-sufficiencey one should attain. This is a personal descision — a question which is always asking how much can one live without to be complete, to be happy and content and satisfied. In this respect, there always seems to be something that one really doesn't need, and it becomes a perennial cycle of shedding of excess matter.

Beyond the level of Self-sufficiencey is the level of Natural Agriculture. As the Japanese farmer, Masonobu Fukuoka has pointed out, natural agriculture is "beyond organic farming. Organic methods protect and do not destroy the environment. But it is based on the same erroneous assumption as scientific agriculture: that man can intellectually understand nature and control and improve upon the natural process. Inevitabley this creates a lot of unnecessary work such as composting, plowing, weeding and cultivating."

Only here does one realize the original purpose and meaning of farming as being sacred work. The principles and laws of natural agriculture. Nature ultimately demonstrates —, shows — one how to live day to day, month to month, year to year.

Natural farming is a visionary approach which is not only a way of agriculture but a way of life; not only does it heal the farmer's land, it heals the farmer's human spirit. Instead of farming considered an occupation where one's time is occupied by the task at hand, a natural farmer has no occupation. Ultimately, there is no separation between living and farming; the farming is one's life and one's life is farming. There is in natural agriculture no separation between work and play; gone is the concept of wages, vacation, overtime, benefits, liesure, coffee breaks . . . . . retirement.

A fine balance of living evolves where time, money and labor no longer synchronize and one's rythms and habits become dictated by nature's rythms and cycles: the seasons, the turning of the earth the phases of the moon, the whispering of the wind, the motion of the clouds . . . . . .

". . . . we cannot isolate one aspect of life from another, when we change the way we grow our food, we change our food, we change society, we change our values."

Wendell Berry

Amazingly enough — and unfortunately — this concept of natural farming has become quite foriegn to us and perhaps even revolutionary compared to our conventional present-day farming practices. But, the more revolutionary this concept may seem, the more important it is to take a look at our present situation and condition of living. We are at a critical point in agriculture ; it is now a part of history that conventional agricultural practices have contaminated our ground water supplies, polluted our streams, rivers and lakes, caued serious illnesses to laborers in the fields, put demands on manufacturers of agro-chemicals to produce lethal gases and chemicals which have been irresponsibly processed or handled and have killed our wildlife and livestock and caused human death, produced poison - laden lethal fruits and vegetables, and, maybe worse than death, have resulted in serious chronic illnesses and genetic mutations in, not only the human species, but — just as importantly — in the animal and plant kingdoms.

Some say that these kinds of side-effects must be assumed or expected in an advanced society such as ours and that we must assume and accept the risks that come with the advancements of modern agro-chemical farming. My arguement is that it is not a price worth paying.

Some say that we cannot afford to let up on the amount of production and yields of our crops. My argument is that there may be a need for *some* large-scale, commercial farming, but there is certainly plenty of room for a lot of small, family farms. The more family farms there are, the less demand there will be on production and yields. When it gets to the point where the government is paying farmers not to plant, there is plenty of room for the diversified, small family farm.

My main concern at this point is that, just as insects become immune to certain pesticides, so too we are becoming immune to the dangers and tell-tale signs of self-destruction. We accept, for instance, the Union Carbide atrocity in Bohpal; hardly react when there is mention of another — and yet another — leak in Indiana; and even rally to show support for the company, in hopes that they will continue to provide jobs for our needy laborers.

To me, the writing is on the wall. We, as a society are demanding and producing such quantity and uniformity; so much so that it is at the expense of our environment and our well-being. The crops look wonderful waving in the fields; but they look suspicious to me.

I fear a growing tendency in the organic gardeners' circles that there is an attitude developing that the ultimate form of gardening has been found. Editorials and articles are becoming overloaded with optimism in praise of the commercially "successful" farmers or harping on the "facilitated" garden with all its new discoveries and advanced tools, labor-saving gadgets and sprays. Superlative adjectives are now becoming the norm rather than the exception: fastest, biggest, easiest, tastiest, cleanest, labor-saving, time-saveing, life-saving... We are not only losing the meaning of agriculture, but we are also losing the meaning of the English language.

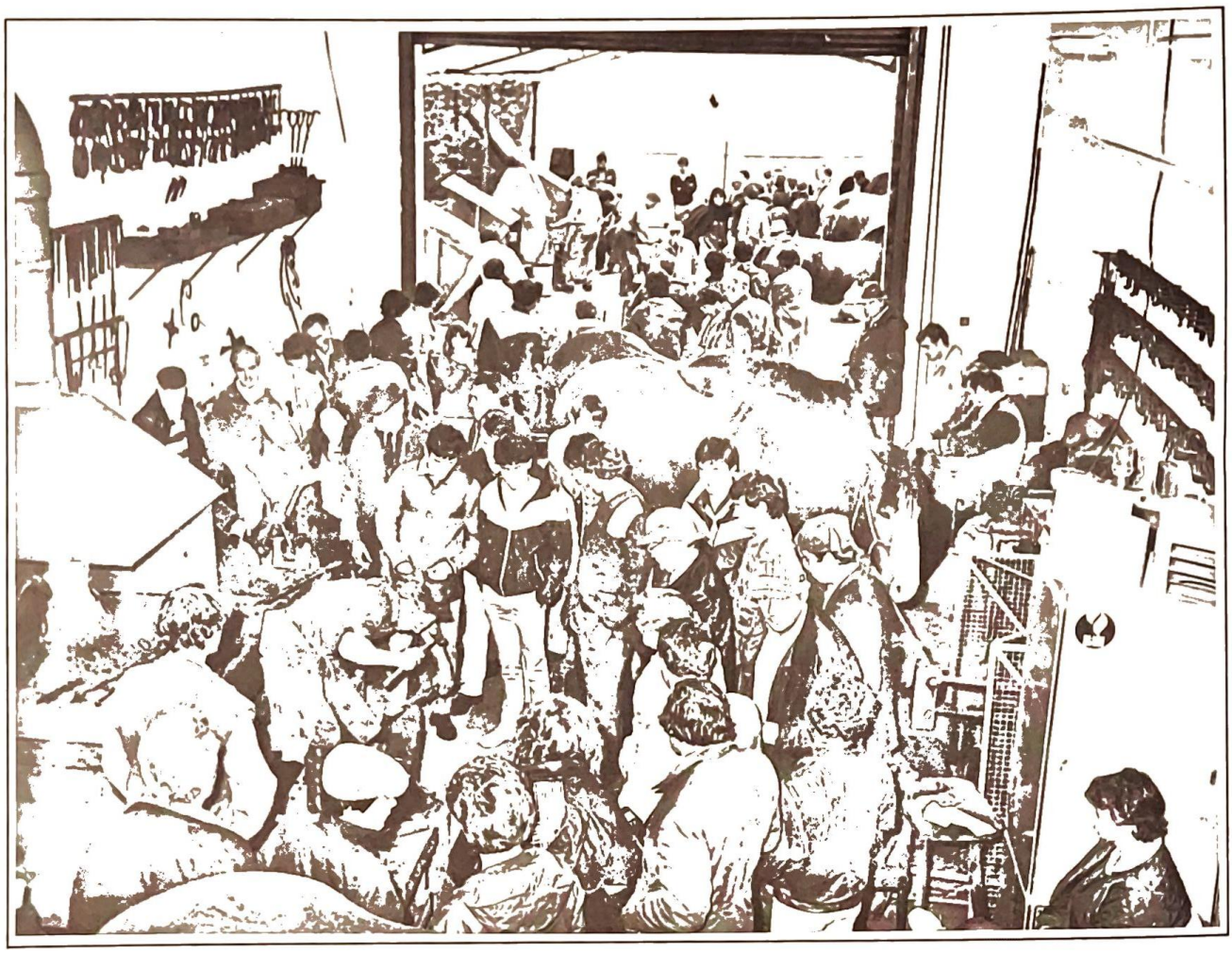
The organic movement seems to have ascended to a plateau; one of self-righteousness; a pat-on-the-back syndrome. Agriculture must not be taken for granted. Organic farming must not be simply considered another occupation, hobby intellectual exercise or topic of science.

I never thought I would have such negative feelings towards such a positive movement or towards the efforts of those who promote it. But we, as gardeners and farmers, must constantly and consistently examine and re-examine our status, purpose and goals. We must continue to strive beyond our limits and perservere to greater levels of human, natural and agricultural development. (I use the word "greater" cautiously. I use the word "development" reservedly.)

Agriculture itself must be recognized as a sacred way of life. It must be respected as a form of cultural and spiritual development.

SHOEING CLYDESDALES THE OLD-FASHIONED WAY IN SCOTLAND.

by Fran Jurga



Crowd gathers to watch the reigning world champion farrier, David Wilson of Fife, Scotland as he works at the anvil during September 1985's Clydesdale shoeing contest in Closeburn, Scotland. Wilson is using the forge where Edward Martin does his daily shoeing work (photo courtesy of Edward Martin)

Closeburn, Scotland is barely big enough for a grocer, car dealership, and hardware store, but on the draft horse map, Closeburn's name is in all capital letters. The little village in southwest Scotland, outside the city of Dumfries, is the home of the Dumfries Galloway Clydesdale Shoeing Competition, held each September.

Closeburn is a town of dairy farms and high stonewalls, a windswept place that time seems to have passed right by, and perhaps favorabley so. The little town embraces the shoeing contest as a favorite annual social activity, and the townspeople all come out to greet the horseshoers.

In the years after World War I, times got tough for farriers and blacksmiths in Scotland, as they did all over the world. But in Scotland, times were tough to begin with, and there were few horses to shoe and less money to be spent on it. Somehow, both the Clydesdale horse and the Scottish farrier survived those hard times and both are known around the world today.

As if they could see fifty years down the road, the Scots back in the 1920's started a Clydesdale shoeing contest in the spirit of friendly rivalry. They shared information, skills, and fun. Younger men and horse-owners could watch the veteran farriers work and they could learn from them. As farrier competitions of all types spring up around the world, the Clydesdale event for Dumfries and Galloway counties gained international notoriety.

Today, the Clydesdale shoeing event still goes on, but with an interesting facet still intact. The rules are set down that the horses have to be shod exactly as they would have been in the early years, pinpointed around 1930. There are no rasps, no wire brushes, and no finishing tools allowed. The horses are shod the old-fashioned way, with hammer-finished shoes.

The contest takes place in the blacksmith shop of Edward Martin, the entrepeneurial farrier/blacksmith who calls Closeburn his home but who spreads his good will and knowledge all over the world. Martin is well known in America for his consistent winnings of the annual draft horse shoemaking championship sponsored by the American Farrier's Association, and for his occasional clinics and demonstrations in this country.

Edward casually invites the world to the contest each year, and sometimes, they show up. For the last three years, American competitors have participated; Irish, English, and Welsh competitors are plentiful.

The contest works quite simply. Eight native Clydesdales are brought to the shop and tied to tent poles. They stand there all day while each farrier takes a

Timothy Challoner of Gloucestershire, England shapes his shoe on the anvil horn, as his striker, John martlew, takes a break from the sledge hammer. (Courtesy of Edward Martin)

crack at one foot. The farrier must trim and prepare the foot for shoeing, make the shoe to fit the foot, nail the shoe on, and make a shoe for presentation to the judge as well.

The horses just stand there, never even kicking at a fly, while hundreds of people press close together, and sometimes a farrier who is working on a hind foot must squeeze between three or four rumps to bend down and take a swipe at his chosen hoof. Once he has the hoof, he can't lift it very high off the ground. The average hoof requires between 19 and 20 inches of steel (a hunter horse might require half that length) that is 1½ inches wide. The coal forges are huge flat beds of coal, each about four feet wide, with one blessed concession to modern times: electric blowers to heat the coal more quickly and provide a steady, even heat to the steel. The steel for a horseshoe that would fit a saddle horse bends like a rubber band in comparison to the Clydesdale steel. As one American competitor quipped, "The only time I had ever seen a piece of inch-and-a-half steel was on a bridge."

The Scots are game, though, and the heat from the forges and the sweating men soon takes the chill off the damp air. Instead of the usual clink-clink-clink of the hammer on anvil, you hear thunk-thunk-thunk instead, as eight-pound sledge hammers slowly shape the giant steel bars into perfectly formed shoes. In addition to shaping the shoe and punching the nail holes, the farrier must crease, or fuller, the shoe along each branch, so that the nail holes are inset. He also must finish off each branch into a calk and draw a one-inch toe clip without the benefit of a rasp to finish and sharpen the clip. It's a muscle-and-mind event as the farriers figure out how to do the job without wasting a second of time.

As the farriers begin to complete the shoes, have the horses trimmed, and are ready to nail on, the judge comes around in his white coat. Sparks fly and coal dust floats in the air as the judge silently examines the horses's foot. Did the farrier take off too much frog — a common complaint the British and Scots have with American ways of shoeing horses — or did he take too much from the heels? Are the quarters even, is the horse standing level? The judge runs a well-schooled finger around the edge of the hoof, feeling for something only he would know is there. A mark goes in a book and the judge goes down the line.

As soon as the judges leave, the fitting up begins. The farrier holds the red-hot shoe against the horses's hoof — known as "hot-fitting" — and then pulls it away. Smoke that has an acrid smell you would never forget fills the air and when it clears, the farrier bends over again. The horses are big, but they can't really lift their feet very high and the farriers can't hold the feet up high for long, so you see many farriers with their heads down at almost ground level, trying to get a look at the hoof. A tug on the feathers and the hoof comes up about eight inches. The farrier is looking at the impression left by the hot shoe. If the shoe is level with the foot all around, it is ready to be nailed on. If not, it's back to the anvil, perhaps to flatten the shoe or widen a branch.

During the shoemaking part of the contest, the farrier has a striker, or helper, who works the fire and swings the sledge that shapes the shoe. During the nailing-on process, the striker is most likely working the fire, tending the second shoe that must be made. The farrier must nail the shoe on by himself, striving to line up the nails evenly around the hoof, to clinch them flawlessly, and to, finally, stand back and admire his work, for a split second, before racing back to the fire to work on the shoe for the judge.

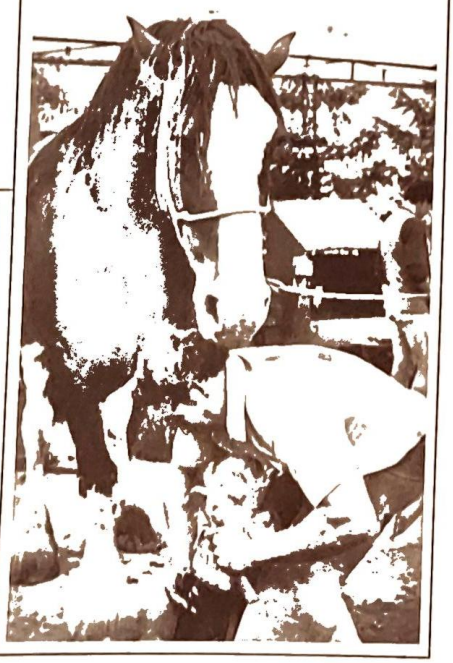
The Closeburn contest is perhaps the most demanding individual farrier event in the world. All the work mentioned, from start to finish, must be done in 50 minutes. That's not much time. In the American competition, for example, the draft horse shoemaking class allows 45 minutes to make two shoes — without having to touch a horse, let alone trim and shoe one! In Scotland, the farrier must make two shoes and nail one on, in just five minutes more. It's a race against the clock and yourself.

Bob Pethick of the North American Horseshoeing Team works on his specimen shoe as judge Jackie Duff looks on. Bruce Daniels, also of the NAHT, was Pethick's striker, and is tending the fire in the background while Pethick works on. (photo courtesy of Edward Martin)

Edward Martin, left, was the overall winner at Closeburn in 1985. The contest is held in Edward's shop each year. His striker (right) was Alex Nichol of Aberdeen. In this picture, Edward is working on the specimen shoe. He is putting the crease in the shoe, which is a welded bar shoe. The creaser is moved slowly and steadily along the shoe's branch as the striker pounds its head with the sledge. Edward's wrist must remain locked and the creaser must be at a uniform depth all along the branch — not easy under the best of conditions.

Horseshoeing contests are held around the world, but for draft horses, this contest and the Shire event held at the Peterborough show in England each spring are the highlights. Closeburn, like so much about Scotland, is unique among all shoeing contests because it takes a step back into history and makes those involved appreciate just how far progress has taken us. The only thing that hasn't changed is the horse. It still has four big feet and still needs shoes. And it's still drawing people to Scotland from around the world.

anny Ward of Virginia nails on as the clock runs out d the horse handler looks on (Fran Jurga photo)



Dave Russell of the North American Horseshoeing Team uses a foot stand so he has a free hand to clinch the nails. (Fran Jurga photo)

When the judges are done, they pick several winners of individual aspects of the contest, plus an overall winner. Farriers are judged on shoeing and shoemaking (won in 1985 by Edward Martin); best shod foot (won by David Wilson of Fife, Scotland); best dressed foot (prior to shoeing — won by Tim Challoner of England); best made Clydesdale shoe on foot (won by David Wilson); and best specimen shoe (won by Edward Martin). Classes for apprentice shoers and welders and fabricators are going on at the same time.

In 1985, the United States was represented by four members of the North American Horseshoeing Team: Bruce Daniels of New Jersey, Bob Pethick of New Jersey, Bob Skradzio of Pennsylvania, and Dean Pearson of Pennsylvania. No American has certainly ever won the contest — Americans have only been competing at Closeburn since 1983 — but Dennis Manning of Roosevelt, Utah, who was a member of the 1984 NAHT, did win the best-dressed foot award.

The Closeburn contest is held early each September and is sponsored by the General Accident Life Insurance Company, along with Mustad International, manufactureres of horseshoe nails, and Faure International, manufacturers of horseshoes.

Plans are underway to start a similar draft horse shoeing contest on the North American continent, perhaps in the maritime provinces of Canada, in August of 1986. David Gulley, and English farrier who has won repeatedly at the Shire shoeing contest at Peterborough, England, has agreed to judge the event. For more information about the draft horse shoeing contest in Canada, write to Rocky Irons, Atlantic Horseshoeing School R.R.3, Saltsprings, Pictou County, Nova Scotia, Canada

ANSWERED QUESTIONS

We are thinking about running a regular question and answer column in SFJ. I had an idea of how it might work but was concerned that we might not receive suitable questions or, perhaps better put, the need would be for information that was too particular to be of general interest. A stalwart friend of SFJ, Brit McLin, loaned to me an old book entitled "Second Thousand Answered Questions in California Agriculture" originally published in 1916. The nature of the questions and answers are pretty much what I had in mind for this magazine of ours. So we are reprinting some answered questions to get your reaction. Perhaps you will send us some and this can become a regular feature. Perhaps not. But at least I am certain you will find these of interest and hopefully of value as well. LRM.

Root-Action After Transplating

A neighbor, while I was planting some peach trees, said I was not pruning the roots sufficiently. He took a tree and pruned off all the roots and rootlets except three or four of the largest ones, and these he cut back. He said the rootlets would not survive the transplanting, and only served to keep the earth from being packed well about the main roots. Was he right?

The finer roots and rootlets, like threads and strings, are often worthless, as your neighbor says. They might better be cleared away, but, because of the work required, they are usually allowed to remain. Roots one-eighth of an inch in thickness there is no object in removing, if the planting and earth-pressing about them is being carefully done. Your neighbor is a little too radical, but trees will grow his way if moisture is ample. In our climate (California) and in our soil which favor surface drying more than the humid climate, where this root docking originated, it is better to retain longer roots in transplanting — merely making a new cut at the ends of them as they come from the nursery. This applies to what may be called average moisture conditions at planting. If the conditions of heat and moisture are ideal, and if the rootlets have not dried during transportation, they do not die but may be the first to start growth. We once took up a June-bud peach, planted a month before, and found that the first new rootlets were starting from the string-like roots and nothing had put out from the larger ones.

Manure and Tree Planting

Which is the best way to use manure in setting out trees: to dig the holes about three feet and then fill about ten inches of manure and about one foot of dirt? Or just dig the holes as you want them and then mix dirt and manure well together and fill the hole with it?

As a rule it is not a good thing to put manure in the hole with the tree — either below it or mixed with the earth in filling. Of course, if the manure is thoroughly decomposed, it may be put below as you suggest and covered with dirt, but unless you are irrigating there will be danger of the soil becoming too dry. If the manure is not decomposed, it will ferment and heat as well as dry the tree roots dangerously. Besides, it costs altogether too much to dig such holes. As for mixing the manure with the soil in filling around the roots, the same dangers are likely to be encountered, and besides, too much manure may come into direct contact with the roots. Plant the tree in clean soil and spread the manure on top after filling the hole. The rains will leach the richness and distribute it through the soil, and the balance can be worked in with the spring cultivation or left around the tree to reduce evaporation of moisture.

Advantages of Fall Pruning

Fruit buds on peach trees have not developed well, while wood growth is excessive where water has been supplied in any quantity. Would not a light early fall pruning be of advantage? What would be the particular precautions to take other than avoiding danger from sunburn?

If you cut back when the tree is too dormant to break new lateral growth the energy will be expended in developing stronger buds on the wood which is retained. There are advantages in getting pruning done earlier, while the days are longer, the ground harder and weather conditions better for work, and more time left for spraying and tillage and a better chance to grow a cover crop also. The chief danger to avoid is the starting of new growth in the fall and therefore signs of coming dormancy are essential. Each tree must be pruned when it has assumed an autumn aspect and lost its summer exuberance. If this comes too early because of drying out of the soil, sunburn must be guarded against by spraying with whitewash. But trees to be thrifty and to bear well should be prevented, by irrigation, from yellowing their leaves too soon. No pruning can compensate for such a loss as that, though by reducing evaporating surface it may keep the tree alive until the rains come.

Skipping a Year's Pruning

Would harm result from not pruning my orchard for one season? They are mixed trees, most of which are three years old, and which have been regularly pruned each season. There are some one year in orchard, which were cut back closely after planting.

You can skip a year with the older trees which have been stiffened by thrice cutting back. Next year you can cut into the older wood as seems desirable. A good many growers play the game the same way. The trees only a year in the orchard should be pruned before second year's growth starts.

Garden Strawberries

My strawberries are growing vigorously and starting to blossom. Shall I let them bear this year? How many runners shall I allow them to grow this fall? Or shall I pinch off all blooms and runners until next year?

As an amateur, likely to give the plants good growing conditions all summer, you can let the plants fruit without injuring them, and you can grow them as singles for feveral fruiting seasons unless you wish some more plants for your own use. If so, limit the runners to meet your needs and husband the fruit capacity of the parent plants thereby. Fruiting singles instead of making matted rows is also a commercial method if one is willing to give the plants the attention required.

Fruit Blossom Honey

Do almond blossoms make bitter honey?

Honey more or less bitter, though not always objectionable to all tastes, is made from deciduous fruit blossoms. Citrus fruit blossoms yield a fine grade of honey.

Onion Growing

Is it desirable to soak onion seed in water before planting? I have tried three packages so far, but they wither away and die.

Onion seed must be fresh and good. Soaking seed in water is desirable especially if you are sowing in a dry soil or late in the season when the soil is likely to become dry, but there is a great deal of onion seed on the market which is not good and soaking will have little effect upon it. Your onions should grow without withering away, if you succeed in getting a start with the plant. Dying is generally due to lack of moisture in a light sandy soil, or sometimes too much water if the soil is inclined to be heavy and sticky.

Potatoes "Going to Tops."

Why do some potatoes all grow to top and have a great number of diminutive potatoes that also sprout and grow more small potatoes?

Excessive top growth of potatoes if generally due to over-stimulation of the plant during its early life. This may be due to excessive use of stable manure and sometimes to the lack of adaptation of the variety to the local conditions. Where this excessive top growth occurs small potatoes form but are not adequately enlarged by return flow from the top in process of maturing because the plant starting vigorously with too much moisture became afterwards too dry and then starting again caused the small potatoes, after becoming abnormally checked in growth, to break out with secondary tubers.

Feterita

What is feterita and where did it come from?

Feterita is a sorghum. It was imported by the government from Africa in 1911. It belongs to the durra group, and is similar to milo and Kaffir, except that it has a larger grain, which is round and almost pure white, and the plant matures in less time. Like Kaffir and milo, it is drouth resistant, and held to be more resistant than either the milo, Kaffir or shallu. Its foliage is likely to hold green after Kaffir and other similar corn has been killed br frost. It does not shell off and waste while handling as badly as does Kaffir. The heads grow erect, are of good size and compact.

Cover Crop to Reduce Moisture

I am thinking of using sorghum broadcast for a cover crop in my two-year old prune orchard on account of the rank growth it makes, but I wish to know if the decaying sorghum forms any acid injurious to the prune. Will cow peas be better than sorghum, considering fertility and humus added to the soil? I plowed under a heavy stand of bur clover this spring and have again seeded to clover, but as a summer cover crop I wish to use one of the above. I don't want to use alfalfa because with the dense foliage it holds the top soil too moist.

As you wish to get rid of moisture a broadcast of sorghum will do that during the frost-free season better than any other plant known to us. It will not catch any atmospheric humus. For that, cow peas would be better, but for pumping out water not so good, and for covering the surface against evaporation, cow peas would be worse than alfalfa. With such moist soil and plowing under green stuff twice a year, you are in danger of souring the soil, but you can correct that by liming. The treatment you propose ought to slow down your prune trees. Under more arid conditions it would run them out.

Harvesting Sorghum Grain

Tell me how to harvest Egyptian corn. What is the best implement to cut the corn? Is there a ready market for it?

Egyptian, Kaffir and other sorghums for grain are usually allowed to dry on the head in the field and are then cut off with pruning shears or knives, thrown into wagons, and piled in the barn or stacked beside it to be threshed when convenient. Much of it is fed without threshing.

Alfalfa on Sandy Land

I planted alfalfa on sandy land, but got no crop, as the land became dry quickly and so hot that the young alfalfa died out. It was planted in the springtime. Is there any way alfalfa will grow upon sandy land?

Alfalfa is all right on sandy land if you start early and have water ready to keep it going; for such soil requires irrigation earlier than heavy soil. You should sow alfalfa not later than February (Calif) in such soil, it it is not a very frosty place. To stand the drouth and heat the plant must have time enough to root deeply.

Harrow or Disc Alfalfa?

Which is the best to use in stirring or loosening the ground on alfalfa, a spring tooth harrow, or a spike tooth harrow?

It depends on the soil, the age of the stand and what you are doing it for. Each grower is likely to answer it according to his conditions, and therefore all types of alfalfa-agitators are well spoken of. If it is to loosen up the soil crust, the full disc set pretty straight and the spike forms of revolvers will all do it — the spikes usually giving most trouble in clogging by winding rubbish. If the alfalfa is well rooted, full discs and spring tooths do not injure the crowns, and are widely used. If the alfalfa is to be cleaned from grass, etc., the spring tooth works well. On the whole, there is probably no best tool for the purpose, just as there is probably no best plow, or incubator, or agricultural editor. Keep trying until you get the one that suits you.

Russian Thistle and Alfalfa.

Is it wise to sow alfalfa on land infested with "Russian Thistle"? What is the most successful means of fighting this pest?

There are several plants which are locally called "Russian Thistle" in California, so we are not quite sure whether you have the true Russian (salsola) or not. Supposing you have the true one, the answer would be: the way to kill out the plant is to keep it from going to seed. It is an annual and therefore has no hold-over roots. It can therefore be killed out by frequent mowing or by herding sheep on it, for it is liked by stock when young. It is desirable to sprout as much of the seed as you can by early-fall heat moisture and clean the land by several discings. Then plow deeply so as to bury more seed, work up the surface, and put on the alfalfa in February, or later, if your land is frosty. If the alfalfa gets ahead it will run out the weed all right. On blowing, sandy soil in Nevada it has proved desirable to drill the alfalfa among the young thistle, thus using the thistle as a sort of nurse crop. The thistle shades the soil and prevents the sand from blowing; also helps hold the moisture till the alfalfa gets its right start. Then the alfalfa will crowd out the thistle.

Restoring Alfalfa

I have two-year old alfalfa that is a poor stand. Should I cultivate it and sow in or should I plow it up and reseed it?

It depends on how poor the stand is. If it is fairly good or good in spots, scratching in seed may help the bare places, since the stand is so young. A poor old stand is hard to catch in with. Probably, as a rule, when one is sure the stand is poor or worse, it is better to start over.

Alfalfa on Heavy Land

I have ten acres I wish to plant sometime in March; it is all leveled and checked now, but will have to be replowed. It is only fairly well drained and water is standing some now from the heavy rains. How should I plant it — deep or shallow — and should the ground be settled, after plowing, with water to insure a firm seedbed? If I can get a good stand this spring, would it live through the coming winter rains, or would it likely drown out? I wish to plant it in March so as to catch spring rains to bring it up.

Replow as soon as the ground is in good shape, and harrow thoroughly. Cover the seed very little. If the surface is a little cloddy the alfalfa will come around all right if moisture is right, but there ought to be a good degree of pulverization. Do not water-settle after plowing. There is a danger of making the ground to cold and wet after the stands protects the land. Alfalfa will stand overflows when the plant is dormant but is not likely to be long-lived if the ground stays too wet during the summer.

Silage Yield of Alfalfa

How much silage will one ton of hay fresh from the field make?

The amount of silage one will get from a ton of green alfalfa will depend on how much the alfalfa is allowed to dry out before being placed in the silo, and on the losses though fermentations and respiration of plant cells that occur in the siloing process. In order to secure a good quality of silage the alfalfa must be run through a cutter and packed well in the silo with the least possible delay after it has been cut in the field so that there is a minimum evaporation of the water prior to the filling of the silo. After the green alfalfa is placed in the silo the losses of feed materials will depend on how well it has been packed and how air-tight the silo walls. In silos with then, flimsy walls a considerable loss of nutrients will occur, viz., one-fourth, or more, while under favorable conditions the loss should not exceed ten percent. In answer to the question, we may say, therefore, that if alfalfa is promptly run through the cutter and carefully packed in a wellbuilt silo a ton will be likely to make between 1,600 and 1,800 pounds of well-preserved silage. Since four tons of green alfalfa make about a ton of hay, four times the amount given, or between three and three and a half tons of silage will correspond to a ton of hay.

Grasses for Mountain Pasture

I wish to sow grasses, principally for pasture on land fully four thousand feet high. Which kind of grass would be likely to meet my requirement and about how many pounds to the acres?

You should sow a mixture and let the best take the land: orchard grass, red top, perennial rye grass, timothy and awnless brome grass, five pounds of each per acre: and add to this one pound each of red clover, white clover and alfalfa per acre. All the grasses named will hold verdure through some frost and will hang on through much drouth, though they may bunch up to resist it. Timothy would only be included in mixtures for far north and high up. The clovers are worth including; they may do better in a mixture on loose soil than they would alone. All the plants will make good use of even a little irrigation water.

Starting Bermuda Grass

How shall I start Bermuda grass, from the seed or from the slip? Is it necessary to cultivate the ground?

It is easiest to start Bermuda with root pieces which can be scattered and harrowed in; or they may be dibbled in at intervals of a couple of feet or so. This can be done at any time when the soil is warm and moist. But be sure you wish to have Bermuda as a constant tenant before you do it. It will need no cultivation to stay in and it will defy cultivation to get it out.

Bermuda Grass and Ground Freezing

Will Bermuda grass grow where there are real cold winters?

Bermuda grass is of very little value in the United States north of Maryland. Even in places northward, where ground freezing may not be hard enough the kill the roots, it is still so late to start and so frequently cut back by frosts that it is of little account. The same rules would apply to the Pacific Coast: viz., where there is hard ground freezing or liability to frost late in the spring and early in the fall Bermuda is practically useless.

Growing Timothy

What is the best way to sow Timothy for hay in mountain valleys?

Timothy is only grown in mountain valleys in the extreme north of the state, where it does exceedingly well. It is common practice to sow Timothy late in the fall, and after the snow melts off in the spring they have an early start. It grows there from 3 to 4 feet high and does well. About 15 lbs. of seed are usually sown to the acre.

Stacking Corn Fodder

I cut about ten tons of fodder, and after letting it cure in bundles in the shock for about a month I put it in the barn. It was apparently very dry, but it has begun to warm, and I should like to know whether I should take it out and stack in the open. If so, what is the proper way to pile it to protect it from weather?

If the corn becomes hot enough several feet from the surface, to be very uncomfortable for the hand, better throw a large part of it out quickly and open the barn for all the circulation possible. Watch the temperature in the center, for if it gets too hot to hold your hand in, you will likely have spontaneous combustion. Otherwise would leave it in. To stack corn fodder make a bed of straw on a well-drained spot to keep fodder from the ground. Then lay several bundles lengthwise of the stack to raise the center of the rest of the fodder, which should be laid in two rows with butts outward, the tassel ends overlapping to keep the center always higher than the outer ends of the bundles, to make the stack shed rain. Top off with a single row two layers deep along center of the stack, finishing the ends with butts sloping outward and downward. Straw on top of that will help keep it dry. Don't tramp it much, because that will break and waste the leaves. For convenience in using the fodder later, stack it as high as you can in short benched, one at a time. Then, taking fodder off one bench at a time from the end last stacked, none of it will bind the next bench.

Lime and Gypsum in Gardening

How much air-slacked lime should be applied per 100 square feet? Is gypsum as desirable as lime for rendering the soil friable?

You can use 5 pounds of lime to the 100 square feet. Lime is more energetic than gypsum in promoting friability. Gypsum is a safer plant stimulant than caustic lime.

Horse and Cow Manure

Is horse manure equal to cow manure for gardening?

Both horse and cow manure are good. The latter may be as good as the former for plant food — that depends upon how well each kind of animal is fed. Cow manure is less likely to ferment rapidly and produce too much heat, and for that reason horse manure is specially good for use in hot-beds.

Hogs and Dairy Cows on Twenty Acres

I have 20 acres of land and have planned to put in about 10 acres of alfalfa and about 7 acres of corn, cow peas, or other grain feeds from which I can get two crops a year. I want to keep cows and enough sows to raise pigs to use the balance of the feed. I will have plenty of water for irrigating. Would it pay to build a silo and how would that feed do for hogs? Would it be more profitable to pasture the hogs or keep them up and cut the alfalfa?

The plan you outline is becoming popular among small dairymen. You can plant a wide variety of early maturing crops which will work in well with corn for a silage crop. The ones most generally in use are barley, oats, rye or vetch. Barley ripens earlier for hay, allowing earlier corn planting. The average yield of silage corn is about 10 tons per acre, and a silo 12 feet in diameter and 32 feet high, holding 72 tons, would be about right. Experience has shown that silage cannot be profitably fed to swine, as they only eat the grain part, the balance being practically all wasted. The number of hogs you keep depends upon the number of cows you intend keeping. It is generally claimed that one cow and three hogs can be maintained a year on an acre of alfalfa, where the hogs receive the skim milk from the dairy. The average brood sow will raise about six pigs to the litter and can raise two litters a year. You would secure better results by cutting the alfalfa than by pasturing, unless you reserve a small pasture for the hogs to run on.

Heifer Twins Are All Right

I have a fine heifer that was born a twin, and people tell me that she will not breed.

If your heifer was born a twin to a bull calf she is probably a "free martin" and will not breed. If her twin was a heifer, she will probably be normal and breed.

Breeding Young Sows

How old should a sow be before she is bred?

Sows should not be bred to farrow until they are at least twelve months old and many breeders contend that it is better to have them farrow at fourteen to eighteen months. This means that they should be bred at eight to twelve months, for the period of gestation is approximately four months.

Which Cow Shall He Buy?

I am going to keep four or five cows, sell cream and butter to customers in town and feed the skim milk to chickens and pigs. Which breed would be better for me to keep — Jersey or Holstein? From what I can glean by reading the Jersey gives not so much milk but richer milk, while the Holstein gives more milk but not so rich, but in the aggregate yields just as much cream and more skim milk.

You have the relative qualifications about right for the two breeds as a whole, but you still have to decide which qualification is best for you, considering your feed supply, land available, etc. Every man has to work that out for himself, and whichever breed he chooses he is pretty sure to permanently swear by. We would no more tell a man which cow to buy than to advise him which girl to marry. If he chooses for himself he will usually be content; if another chooses for him he will begin to doubt right away. It is that way with a man.

Highest Value in a Vetch

In all my reading regarding the value of vetch as nitrogenous fertilizer, I haven't as yet seen a statement as to when is the time to plow under to get the greatest results, regardless of any conditions.

If you mean when the plant has highest value in itself it is while the pods are still green and the stem yellowing a little at the base.

How To Dry A Cow

What is the proper way to dry a cow?

Do not milk out fully, but leave a small quantity of milk in the udder, gradually decrease the amount of milk taken at each milking, until finally a day or two may be skipped between milking. Always be on the watch for a hardening of the udder, which means that not enough milk has been taken out.

Bitter Butter

The last butter I made would not turn hard, although I churned for hours to see if it would, and was so bitter we could not eat it. The cream and milk is always good and sweet so I cannot imagine what the trouble may be.

You must have intended to state that the cream would not churn, for no person would churn a long time after the butter came in order to harden it. Over-churning would have the effect of making it greasy and incorporating a lot of buttermilk. In farm butter-making there are often difficulties in churning, especially at times when most of the cows are dry, and when those still milking are well advanced in the period of lactation. The milk at that time contains a large proportion of small fat globules that are not easily gathered. To ripen the cream to a higher degree of acidity, to obtain cream from cows that have freshened within a few months, or to feed cows more succulent food will sometimes remedy the problem. If the cream is not churned sweet and fresh it should be properly ripened as quick as possible. If cream is left during cool weather until it gets sour, the lactic acid bacteria will develop so slowly that they will be crowded out and too many undesirable bacteria that produce bad flavors will develop. This may be the cause of the bitter flavor in the butter.

Whey as a Swine Food

Is cheese whey good for hogs? What should be fed with it to growing pigs and also what is best for fattening purposes?

Whey is generally used for feeding hogs in cheese districts and makes a good swine feed when fed in sweet, or not very sour, condition. It has about one-half the feeding value of skim milk or buttermilk for feeding swine. It is safe to assume that twelve pounds of whey will save you a pound of grain when fed to swine under sanitary conditions. At ordinary prices for grain this would make it worth about 12½ cents per hundredweight, which may be considered a fair average price. (Note: at today's grain prices the whey would be worth 54 cents per hundredweight as equivalent stock feed value. LRM) Whey is relatively higher in starchy substances and lower in flesh-forming substances (protein) than either of the other dairy products mentioned, and may, therefore, be supplemented by more high-protein feeds, like middlings, or shorts or linseed meal, along with grain feeds like barley, Indian corn, ground Kaffir, milo, etc. I would recommend for feeding growing pigs on whey a mixture of ground barley, shorts and linseed meal in the proportions of 2:1:1 by weight, or of barley and shorts only, equal weights, giving two per cent of the grain feeds per weight of pigs and making a thin slop with the whey. As the pigs grow older the proportion of grain is increased. Fattening hogs are fed relatively less whey, say three pounds per pound of grain fed, which may be made up of similar feeds as those mentioned, except that linseed meal is left out and more of starchy grains, like barley and grain sorghums, be included.

Feeding Little Pigs

What amount of Barley should be fed pigs while sucking and also after weaning? I have plenty of alfalfa and alfalfa hay, and skim milk. Will pigs do fairly well on rolled barley and alfalfa, and alfalfa hay?

Pigs, while sucking and immediately after weaning, will eat approximately six per cent of their live weight, but probably a better plan is to feed them what they will clean up readily in fifteen or twenty minutes of feeding three times a day until they weigh 75 pounds, after which feeding twice per day will be satisfactory. As they get older, the percentage of their live weight that they can consume will decrease until at 300 pounds, a hog will ordinarily not eat over two and a half percent of its live weight. Pigs will do fairly well on rolled barley soaked for twelve hours, and alfalfa pasture, but you will probably not get very desirable results in feeding alfalfa hay to growing pigs. They can eat a small amount, but it is too bulky for them. Brood sows can often consume one pound of alfalfa hay for each three pounds of grain, but this ration would be too bulky for growing pigs.

Silage Always Ready

After filling a silo with alfalfa, how long will it be before it is safe to begin feeding the ensilage?

You can yank it out and feed it the next day if you wish, or any day thereafter.

Feeding Broilers for Market

Will you give me a good formula to feed broilers for market?

If you can get sour milk or buttermilk, mix all your mash feed with it, as the broilers will fatten quicker and be a much better color. If you have cheap potatoes, cook them, then mash, adding corn meal or ground oats and shorts with a little salt. Potatoes make a cheap fattening diet but need thorough cooking. Mix one part ground oats with one part fine shorts or low grade flour and one part bran. Mix the whole with sour milk or buttermilk and feed what they will eat up while fresh. In feeding all milk mixtures this rule must be followed, because if they do it will cause bowel trouble. The second week leave out the bran and feed just ground wheat or oats and flour, the third week add a teaspoonful of tallow to the mash for every bird fed, this is as long as they can be crowded with this fattening diet so don't commence feeding this until your broilers have reached the required size.

Wood Ashes for Worms

How much wood ashes would you give to a hundred hens in the mash for worms?

A good-sized fire-shovel full of sifted ashes, and if the wood is oak, so much the better. Oak is the best wook for that purpose; some wood ashes have very little value.

Small Cow Barn

State the best arrangement, the necessary floor space, and the cost of materials for a cow barn for 15 cows — nothing fancy, but substantial and clean.

A milking shed for 15 cows, built either at right angles to the barn where the feed is stored or at the end of same, should be about 20 feet wide and from 50 to 57 feet 6 inches long, according to the space allowed for each cow. This space is usually from 3 feet to 3 feet 6 inches. Where the cows are only to be kept in the barn while fed and milked the space for each cow is generally only 3 feet. Allowing only the latter space, 45 feet for the cows and a gangway 5 feet wide at the end where the shed connects with feed barn would be sufficient. There sould be concrete floor arranged as follows: feed alley and manger from outside wall to stanchions 8 feet; floor stanchion to gutter, 5 feet, with one inch fall to gutter; gutter 18 inches wide, passage way from gutter to outside wall 5 feet 6 inches. There should be about ten 2 x 3 feet windows in the barn. Another plan would be to build the shed for 16 cows with two rows of cows and a feed alley 10 feet wide between the rows. This milking shed would be about 29 feet by 34 feet and could be extended if the herd increased in number. The cost is best estimated locally.

Pumpkin Seeds and Cows

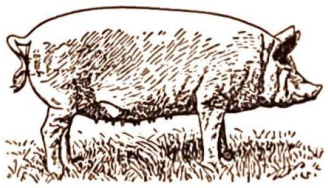
What effect have pumpkin seeds, fed with the pumpkins to milk cows?

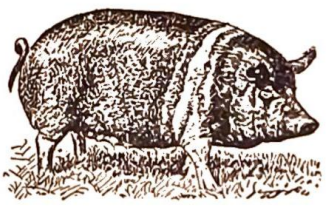
No ill effects. We have fed them to cows ever since we were a kid. Give the cow the whole thing after smashing it so she can get hold.

Feeding Value of Sweet Potatoes

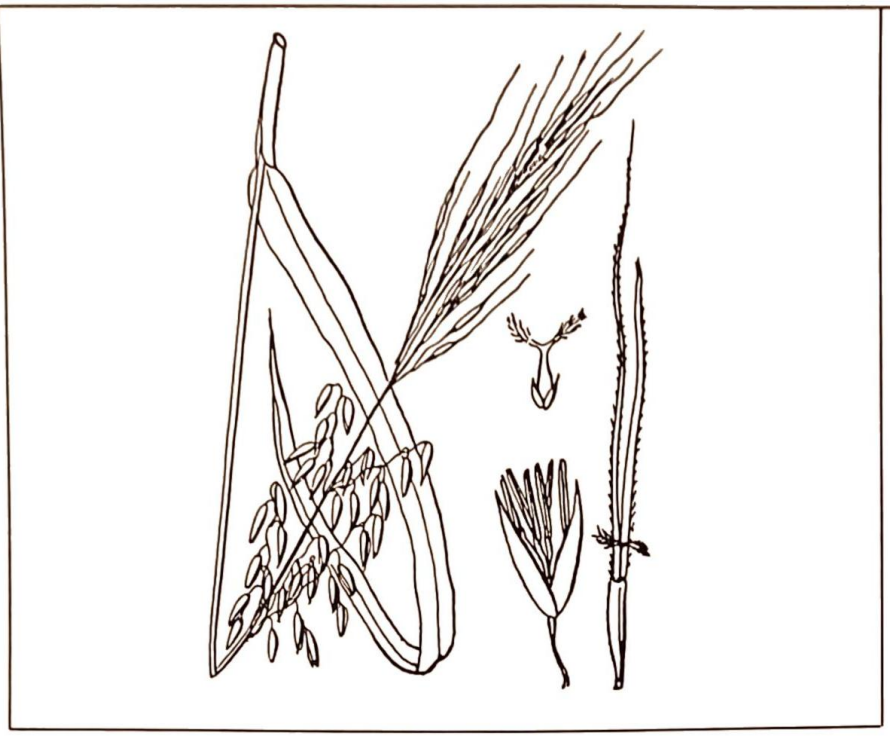
What is the feeding value of sweet potatoes for milch cows, when fed in conjunction with alfalfa? Price is no object as I have plenty of both.

Three pounds of sweet potatoes contain almost as much dry matter and starchy feed componenets as one pound of Indian corn or barley. Under the conditions stated, they will make a valuable feed for dairy cows and are preferably fed sliced in quantities of twenty to thirty pounds per head per day. Sweet potatoes are rich in sugar and starch and are low in flesh-forming substances (protein); for this reason they are especially good supplementary feeds to be given with a high-protein feed like alfalfa.





WILD RICE



by Joann Burch

Wild Rice, which really isn't a rice but the seed of an aquatic grass, was first discovered around the Great Lakes area of Canada, Minnesota, Wisconsin and Upper Michigan. The scientific nomenclature, zizania aqautica, comes from the Greek words meaning water weed.

The Indians of the area first harvested the greenish to purplish grains in canoes. One person paddled and poled to guide the canoe and another person held a stick in each hand. As the canoe skims slowly along the water in rows, the person with the sticks gathers the rice. With one stick the rice is bent over the boat while the other stick rakes the kernals off. Wild rice harvesting in this manner is not for the squeamish. Along with the grain comes the worms, spiders and bugs of all descriptions and sizes. The finished product with its nutlike, slightly smokey flavor makes all the work worthwhile. When the Chippewas drove the Fox and Sioux from the fields of rice in the 1600's they knew what they were fighting for. It seems ironic that when the white settlers came they didn't find a way to include the wild rice in their farming quilts.

The caryopsis, which is the fruit of the plant, is similar to cereal grain kernals. The seeds vary from one to one and a half cm. in length. A thin layer of pericarp and aleurone surround the endosperm. The embryo at one end of the caryopsis contains a cotyledon that may extend the full length of the caryopsis. A cleoptile surrounds the terminal bud and a coleorhiza surrounds the primary root. The lemma and palea (hulls) remain on the seed during harvest but are removed during processing.

Wild rice seeds require three to four months of cold water storage (35 degrees F.), however, freshly harvested seeds can be forced to germinate by carefully scraping the pericarp directly above the embryo. Scraped seeds must first germinate in water and the seedlings transplanted.

In about six days, under water, the coleoptile breaks through the pericarp and the primary root emerges on the seventh to tenth day. Still submerged, within three weeks the seedlings have three leaves. These leaves have no wax, remain submerged and eventually die. From this comes the first internode which can elongate up to two inches. Adventitious roots arise at the first node and may at the second and third nodes.

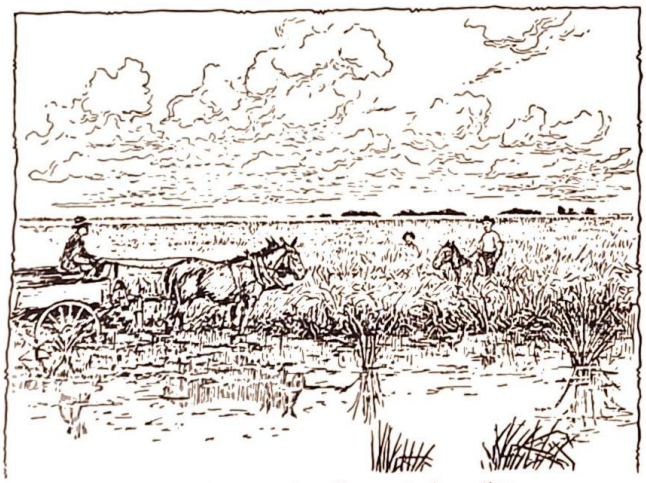
The next two leaves have waxy surfaces and float on the water. The remaining three to five leaves are aerial with waxy surfaces and blades. They vary in length from sixteen to thirty inches. Their width is three-fourths to one inch. The upper three to rice internodes are twelve to thirty inches long and the lower internodes are about twelve inches long. Stem diameter vaires from ¼ to ½ inch. The basal node of the main stem and tillers may produce up to fifty tillers. The monoecious panicle is eighteen to twenty inches long with the seed-bearing part ten to twelve inches and located above the male part. The wild rice plant has septa within the stem where gases can diffuse freely, which are impermeable to water. These airspaces make it bouyant and able to remain upright in the water.

The thick, white spongy roots are straight and lacking in root hairs. The roots are adequate without being aggressive.

Flowers occur in branched panicles like the common rice, but wild rice flowers are unisexual. The female flowers are on the upper end of the panicle and the male flowers are on the lower branches. This promotes cross-pollination like corn. The lemma and plea spread just enough for the stigmas to protrude for pollination. Each floret has six stamens. The anthers are bright yellow and usually shed their pollen about two hours after sunrise and drop the anthers by sundown. The grain quickly forms after pollination.

There are four species of wild rice; Z. Aquatica, Z. Palustris, Z. Texana, and Z. Latifolia. There are two varieties within the species of Z. Aquatica. Its seeds are slender and not harvested for food. It grows in the St. Lawrence river, eastern and southeastern U.S. coastal areas, and in Louisiana. There are also two varieties of Z. Palustris. It is the large seeded type grown for food and as a field crop in the Great Lakes region (sometimes referred to as Minnesota wild rice).

Z. Texana and Z. Latifolia are both Perennials. Z. Texana has a slender seed and is grown in a small loca-



Rice-field prior to drawing off water for harvesting.

Rice-field in harvest.

tion near Marcos, Texas. It is not harvested for food. Z. Latifoia is native to Asia. It has some potential as a forage crop because of its wide leaves but it is not cultivated. It fails to flower in the Great Lakes region.

It should be noted that the state of California is having some success growing wild rice in Humboldt and Modoc counties as a potential crop. However, Minnesota wild rice is best suited to northern latitudes.

In growing Wild Rice as a crop it is essential to use improved seeds of the non-shattering varieties and of medium height. Since the rice has a tendency to ripen over a period of time this requires about three passes over a field before the whole crop is harvested. This is why non-shattering characteristics are important. At this time the best non-shattering varieties are Johnson, M1, M3, K2, and Netum. These varieties all lodge if grown in deep water or if too much fertilizer is applied. They are all susceptible to brown spot and other diseases. Because seeds need to be stored in water at 35 degrees F, it is difficult to keep them for more than a year. As much of the chaff as possible should be removed to retard fermentation.

Native stands of Wild Rice are found along stream, river and lake shores in shallow water, rarely over three feet in depth. Gentle movement seems important to its survival. The heavy end of the seed stays in the mud as they orient themselves against the flow of the water. Other water plant seeds wash away which helps continue the Wild Rice plant as it is unable to compete against other aquatic plants.

A dike system is necessary if large fields of Wild Rice are to be setup. Understanding how this is done may help you determine if you have a natural habitat on the farm that might be suitable for a small plantation. Place dikes so a maximum water depth of 8 inches is on the shallow end and 16 inches on the deep end of the field. The access roads should be used as part of the dike system to collect, divert, and divide drainage. Use culverts where roads cross drainage ways. The minimum top width of a dike should not have less than 4 feet, but not less than the height of the dike. The steepest side slopes should be 1½:1 for most soils, 3:1 for erodible soils. The height should be 1 foot higher than the water level. Avoid burying logs or frozen chunks in the dikes. Bluegrass is best for seeding dikes. It retards erosion, is not a weed in Wild Rice fields and is not an alternate host for diseases Each field must have inner ditches around the perimeter for rapid drainage before harvest.

The water system should be planned so it can flood a field in 7 to 10 days. The amount of water requried ranges from 24 to 30 acre-inches. One system is for a central supply ditch, another allows water to flow from one field to another. The later system prevents individual crop rotation or fallowing for each field. Detailed designs are available from Soil Conservation Service, 200 Federal Building, 316 N. Robert Street, St. Paul, Mn. 55101. Ask for "Irrigation System, Surface and Subsurface (443)".

High slainity and sulfate water is very injurious to Wild Rice growth. In most stands of Minnesota they are found where the alkalinity is 40 to 200 ppm, sulfate concentration is less than 10 ppm, and PH is 6.8 to 8.8 (by Oelke and Brun, 1969). Nearly 80 per cent of Wild Rice fields are developed on Organic soils. Field water is released slowly over a period of one to two weeks. Return flows to lakes do not contribute a significant amount of phosphorus. Hardness and PH (of water) do not affect the Rice.

It is better not to plow organic soils for flooding, they tend to float. Large disks or rotovators work better Wild rice will grow in soils from clay to gravel. The soil is primarily for anchorage, moisture, nutrients and oxygen. Soft ooze and mud are best. High organic matter results in loss of stand. Neither liming or fertilization with micronutrients is beneficial to Wild Rice production. A slight deficiency of nitrogen is helpful. It results in less lodging and vegetative growth.

Full sunlight is beneficial to the Wild Rice. Anything that blocks the sunlight, such as scum or algae, may affect the seedlings.

Most aquatic weeds will kill out Wild Rice, especially the broad-leaf weeds. Planting weed free seed is the first step to a good crop. Some of the common weed to keep out are Cattail, Common Waterplantain, Burreed, Common Arrowhead, Water Starwort, Cursed Crowfoot, and Small Pondweed.

Insects associated with the Wild Rice are the Wild Rice worm, midge (associates with algae), rice stalk borer, rice water weevil, rice leafminer, and rice stem maggot.

Crayfish are not a major problem, but if they get into the fields they eat the seedling. In some areas Blackbirds can be the major problem. Waterfowl do not seem to do much damage to a field and are usually favorable to the field. Larger mamals may damage a field but the smaller ones pose no problem.

Although Wild Rice is not closely related to Rice they do share some of the diseases. Brown spot or leaf spot seems to be the biggest problem where there is high humidity. Sanitation is the best control program as is with stem rot. Smut and Ergot have been noted. In all cases sanitation is the best preventative of disease.

New growers can obtain seeds from seed growers by making arrangements before the fall harvest. Growers who save their own seed should make sure it is weed free, especially of water plantain. It can be cleaned by gravity or air. Plant new fields with the most shatter resistant seeds available.

It may be desirable to grow small grains such as oats a year or two before planting Wild Rice in the seed beds, especially if they have been plowed. This helps the initial vegetation to decompose as Wild Rice does not compete well against other vegetation.

Wild Rice can be seeded in either the fall or spring. Fall seeding eliminates having to store the seeds over the winter. However, care should be taken to make sure the seeds do not dry to less than 28% moisture. Spring seeding should be done as early as possible. In Minnesota after June 1 it was too late.

The seeds will not emerge if planted more than three inches deep. A grain drill gives uniform depth, However, a fertilizer spreader may be used. Mix the seed to a ratio of 1 pound of wet wild rice to 2 or 3 pounds of oats and incorporate to a depth of 1 to 2 inches with a disk or harrow. In Minnesota a seeding rate of 30 to 45 pounds of seed per acre is needed for a plant population of four plants per square foot. California's most confronting problem has been stand establishment. They have had to use a high seed rate of 50 to 75 pounds per acre.

It should be stressed not to let the Wild Rice seed dry out. Bring it from cold storage, mix it with Oats or Barley and seed. The Oats or Barley will not germinate under flood conditions.

After the first year the plants reseed themselves. Up to 1,000 pounds per acre can fall to the ground. This results in too dense of a plant population. Man's ingenuity has taken care of this. The use of an airboat with a toolbar attached and V-shaped knives spaced 6 to 8 inshes apart removes rows of plants on the soil surface. This needs to be done during the floating leaf stage and thinned to two to three plants per square foot. However, fall plowing in second year, and older fields can reduce the amount of thinning necessary. Plowing can be used if care is taken not to turn up infertile subsoils. The rotovator is more advisable. It may need extra flotation for soft peat soils. Tillage is necessary for weed control, seedbed preparation, and incorporation of fertilizer.

Most growers keep their field fallow the third year for cleaning their fields and crop rotation. Good rotation crops are mustard, wheat, rye, buckwheat,and forage grasses. Wild Rice seeds survive in the soil for several years so changes to a new variety are difficult. Two years of flooding, draining, tilling and planting to a crop like buckwheat should eliminate most of the old Wild Rice variety. Some success has been acheived by plowing 20 to 24 inches deep to bury old seed.

Wild Rice in California is usually ready to harvest 85 to 90 days after planting. Canada starts harvesting in early July for their early types and late July for the Minnesota types.

The traditional hand harvesting of the Great Lakes region is giving way to machine harvesting with the advent of the non-shattering varieties. One type of harvester uses a heavy bat-reel. It brushes the heads and the grains fall into narrow seed pans that straddle the plants. The pans are high enough so that the plants bend under them without breaking off. The plants are harvested about four times at three day intervals.

Modified combines are also in use (but cost of these monsters can be prohibitive). Because the rice can't dry out, there isn't time for the fields to dry out. The rice has 35 to 40 per cent moisture content at harvest time. The combines must be equiped with either half-track or full-track systems. This makes the original steering inadequate. Installing steering clutches and welding solid the differential spider gears allows wider pads on the tracks. The height of the reel should be adjusted. It should be low enough to harvest most of the grain but high enough to reduce the amount of straw going into the combine. Attention must be given to the air settings. Too much air blows the lighter kernals out the rear of the machine and too little air accumulates too much chaff. Tines on the reel should point down or a little to the rear to provide a lifting action. The aggressiveness of the cylinder, its speed and the closeness of the concave should only be enough to thresh the kernals.

The steps taken in processing the Wild Rice today reflect the methods used by the Indians of days gone by, with the exception of separation of immature kernels and packaging.

The University of Minnesota Agricultural Engineering Department developed a machine that separates three fractions. The large diameter, mature kernals are the heavy fraction. The small immature kernals are the light fraction. The medium fraction are the intermediate stages. Only about 50 per cent of the green weight is accounted for the heavy fraction.

Although a few processors skip the fermentation or curing process, most feel it is an important part of processing. It develops some of the flavor, changes the color from green to brown, and helps hull degradation. Fermentation time varies. The rice is kept cool and moist from 7 to 21 days in California and 4 to 7 days in Minnesota. The Wild Rice is placed in windrows on concrete or stored in cloth bags, or bins for this time. Occasionally it is turned and wetted.

Parching reduces the moisture content down to 7 to 10%. Parching or gelatizing also conditions the rice from damage during hulling and gives the rice its smoky flavor. The kernals are placed in 4 X 6 - 8 foot rotating drums heated from 180 degrees to 185 degrees for two hours. The Indians parched their Wild Rice in an open kettle over a hot fire. They stirred it with big paddles to keep it from scortching.

The object of the hulling process is to separate the hulls from the kernals without breaking the kernals. If the fermentation and parching have been done correctly there will be less breakge of kernals.

The rice passes over a screen to remove debris then it is conveyed into the huller. The double roll hullers are more widely used. They are two rubber rollers that impart a rubbing action as the rice kernals fall between them. One roller runs at a higher speed than the other. The barrel huller has rotating paddles that knock off the hulls in an enclosed drum. When the indians hulled their grain they donned their moccasins and leggings and danced over the grain to loosen the hulls.

Many processors today scarify the rice to reduce cooking time. This is important if cooking with other rice especially. This removes a portion of the outer layer of the kernal. The scarifier is a cylindrical drum with a shaft that has several rubber paddles. The scarifier is slightly tipped down. The inclination, speed and clearance of the rubber paddles determine the degree of scarification.

The cleaning process proceeds all along the processing line. Much of it is removed in the winnowing process. Large fans blow the hulls and debris out and small pebbles are removed by the gravity separator. The Indians preferred tossing it in the air or laying it on a blanket and letting a brisk wind blow away the hulls and chaff.

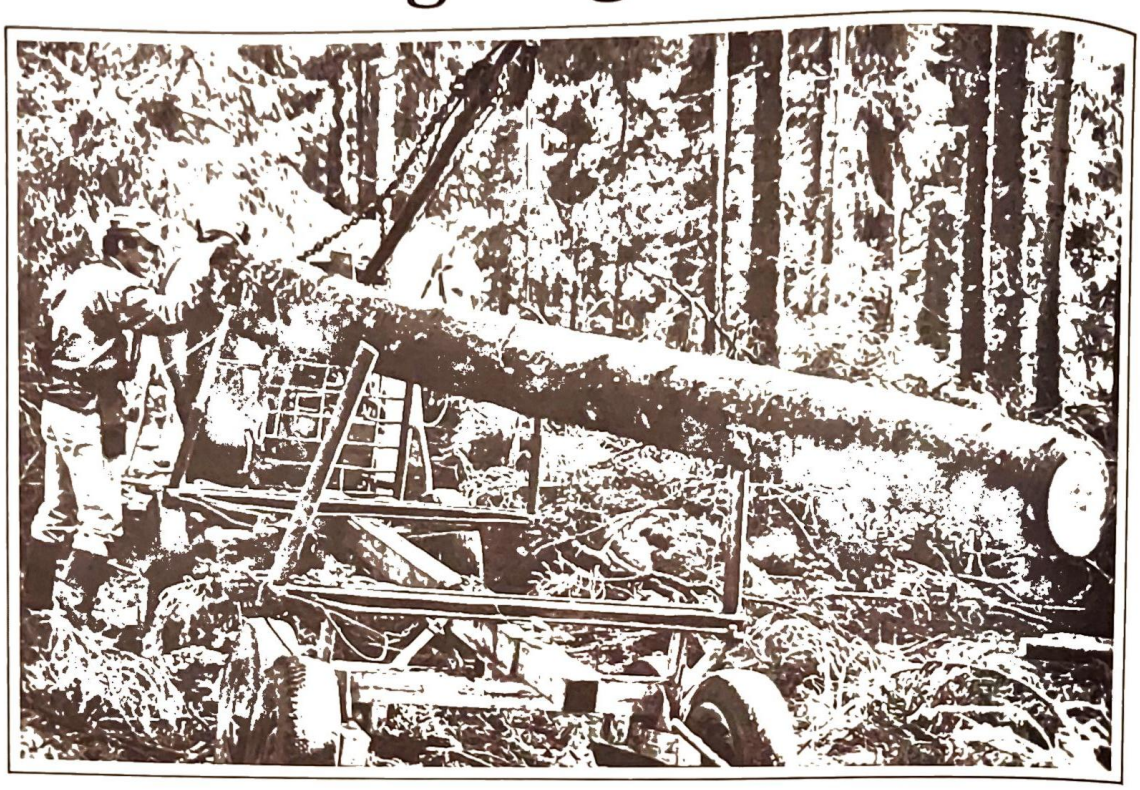
There are no market classes for grading yet, but it is graded for size, flavor and appearance. The rice is separated in indented cylinders, one over the other, and packaged in 1 pound boxes or plastic bags. As Wild Rice comes more into its own it is being sold in bulk. A small amount is being exported to Europe now. It takes 2 to 2½ pounds of green paddy rice to produce 1 pound of finished rice.

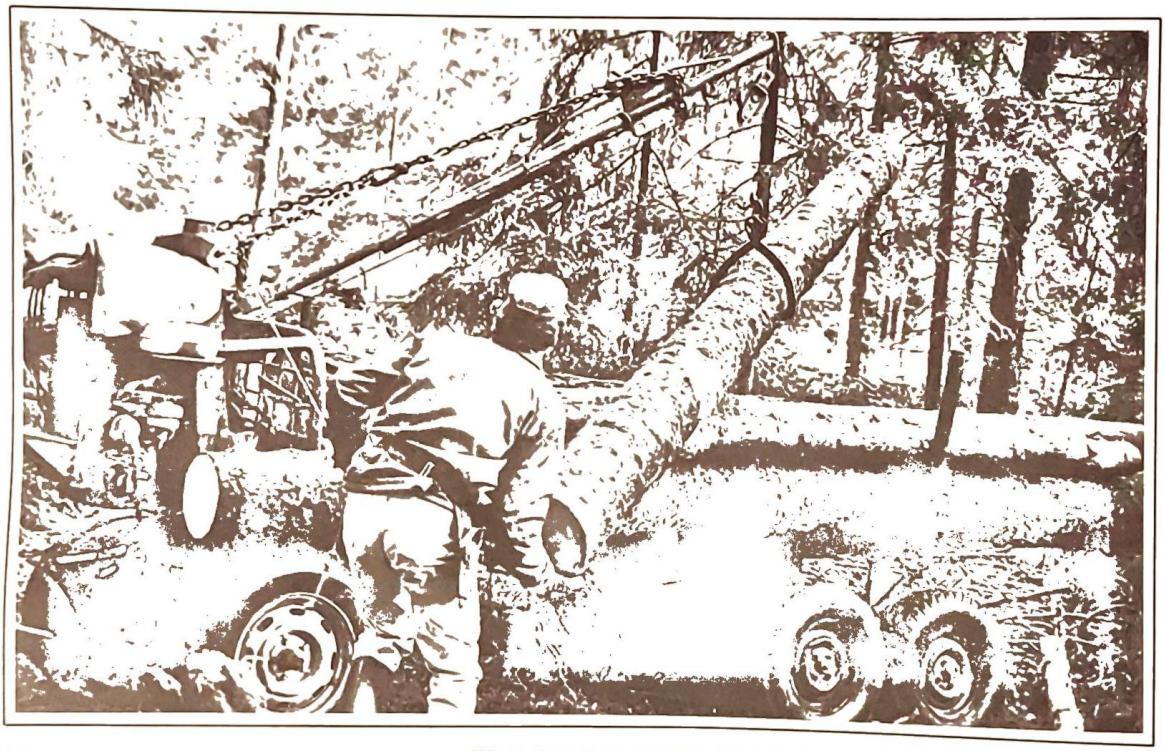
Wild Rice has a higher protein and less fat content than other cereals. The ash values are comparable with other grains except for the polished white rice. It has half the crude fiber of wheat and corn but similar to brown rice and oats. Regular rice has a slightly higher carbohydrate percentage than Wild Rice. As a whole, it appears comparable in nutrients to other cereals.

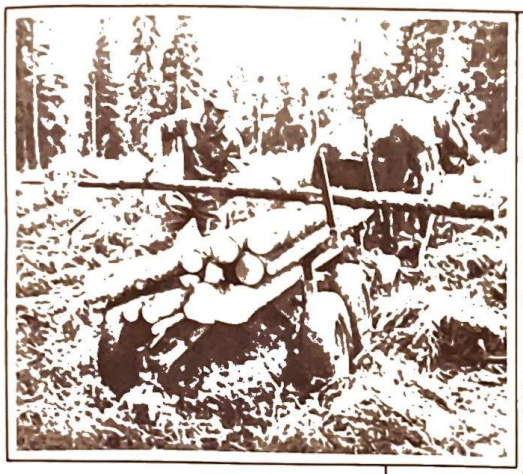
Wild Rice was used as an expensive gourmet food, often served with wild game. Today marketing expansions have it sitting in the kitchen cupboards used only to the limits of the imagination.

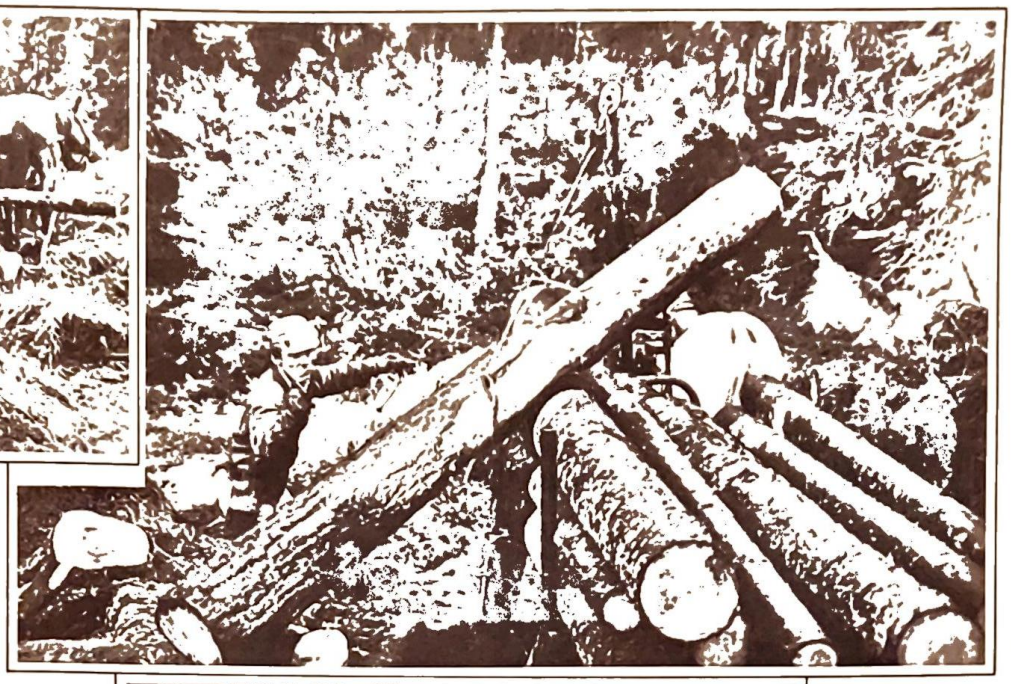
AUTHOR'S NOTE: For those of you who would like more information, write to; Plant Pathology, 304 Stakeman Hall, 1519 Gortner Ave., University of Minnesota, St. Paul, Mn 55108 —or— Cooperative Extension, U.S. Department of Agriculture, University of California, Berkeley, Ca. 94720

Swedish Horse-drawn Self-loading Log Truck









These photos were sent to us by Lars - Ake Johansson of Svenljunga, Sweden. We did not get very much information with the pictures but I believe this is an outfit that was built by Lars.. If I understand the translation correctly he calls this a bogie-carriage for horses using a motor driven wire crane. The cable hoist loader apparatus is powered by a Honda 5 hp motor with a reduction lift. The carriage, or running gear, has a "front axle which is twistable around the longitudinal axis of the carriage, 1.e. center suspended." Lars goes on to explain that this construction prevents torsions of the load and is therefore easy to handle.

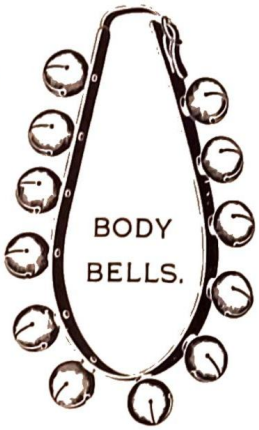
The picture in the snow is of the same running gear without loader and setup for one horse. Our sincere thanks to Lars for sharing.

BELLS

MARTINGALE STRAPS

BODY STRAPS.

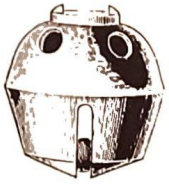
ARCTIC NECK AND

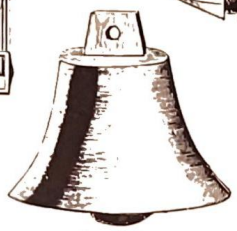


BODY BELLS.

FROSTED BELLS.

REVEL BELLS.





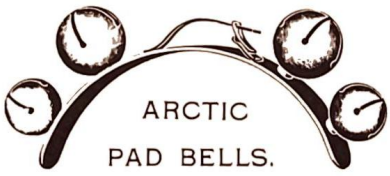
Open Pattern.

DEXTER BELLS.

ROUND BELLS.

Nos. 0 to 8. Rim.

Nos. 1, 2 and 3. Globe.



ARCTIC PAD BELLS.

BODY STRAPS.

DEXTER BELLS WITH CHIMES.

Bells, what delicious musical memories that word seems to conjure for us all. I will be eternally delighted with the notion of the bell wether, or the clunk-clank milk cow, or the breathy full-load sounds of sleigh bells just the other side of that row of evergreen.

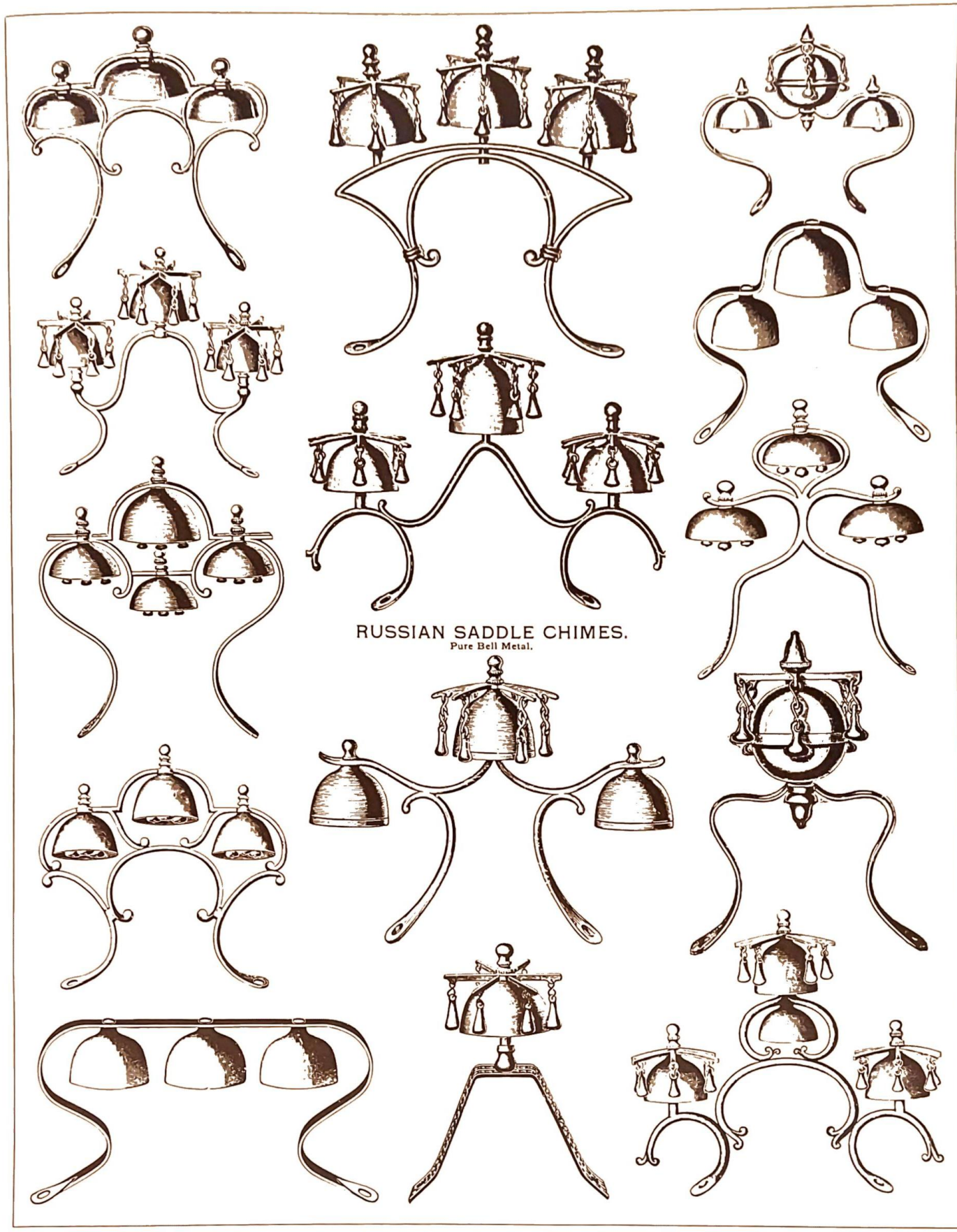
There is the listening of bells, and there is the thought of bells, and for some there is the taste of bells. With the generous help of a friend of the Journal we share with you here a particularly fine "look" of bells.

I enjoy them so much; quite like a perfumed, heavy-set, wood-fired, holiday fruit pie. It's almost as though they might be fattening.

Laura Martin of Old Mission (how wonderfully appropriate!) Michigan — Thank you for letting us borrow your No. 61 Star Brothers Bells Catalog (published in 1912) from which these illustrations were lifted.

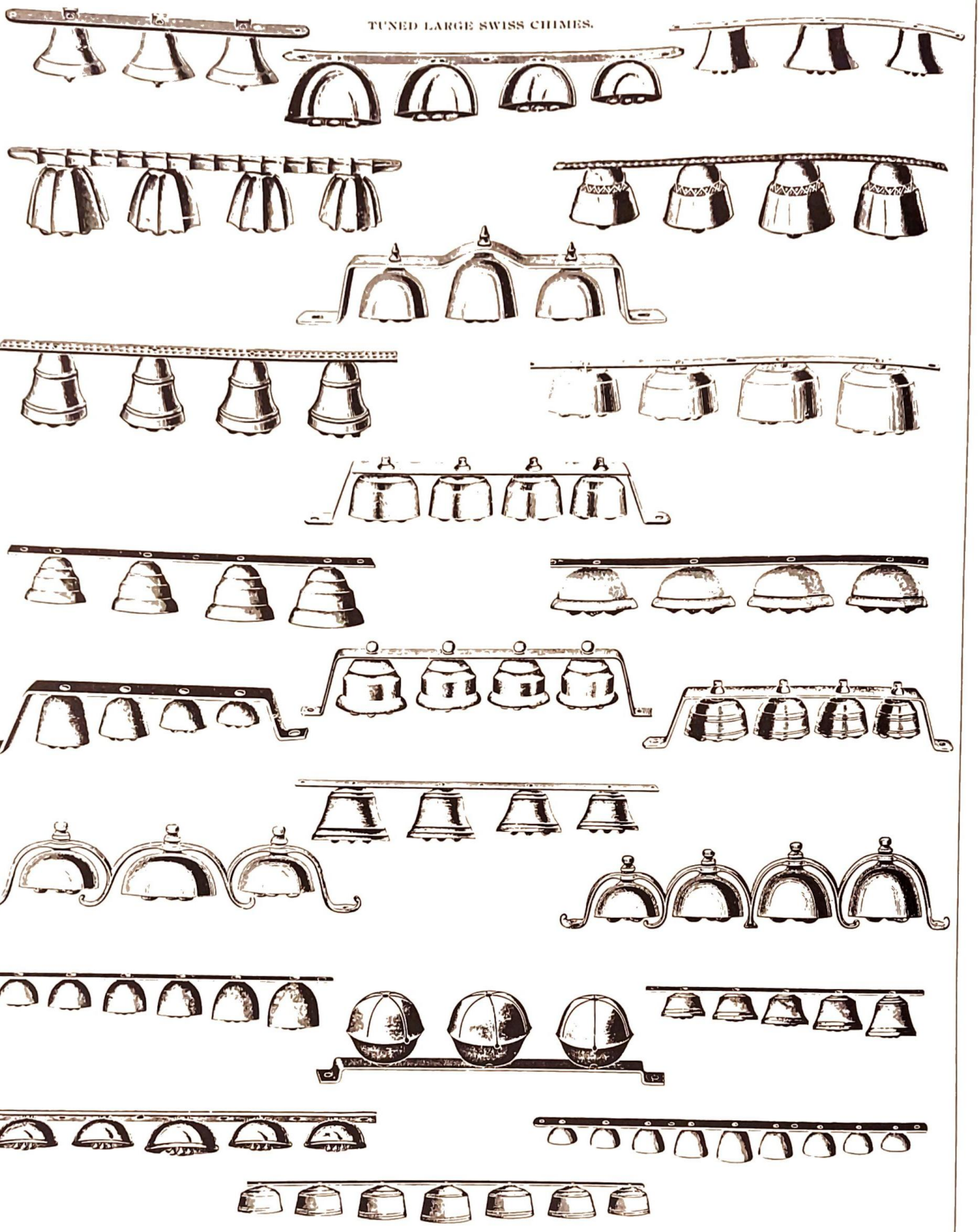
HAME CHIMES.

No doubt there will be some of you who will write in wanting to purchase certain bells you see on these pages. None of these are, to our knowledge, any longer manufactured just as you see them here. There is, however, a very nice man in Pennsylvania who makes beautiful sleigh bells by his own patented casting process. We highly recommend you contact Bill Schall, Star Route, Box 137, Apollo, Pa. 15613. Tell him hello from us. LRM


RUSSIAN SADDLE CHIMES.
Pure Bell Metal.

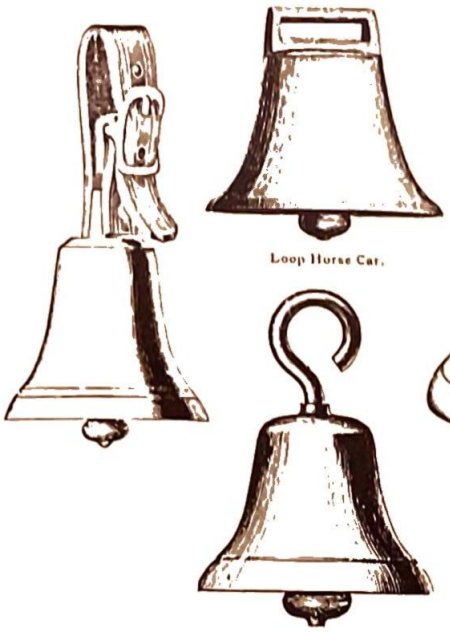
CAST BELL METAL SHAFT CHIMES.

TUNED LARGE SWISS CHIMES.

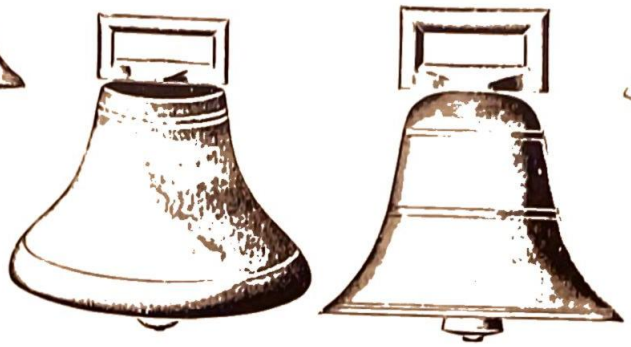


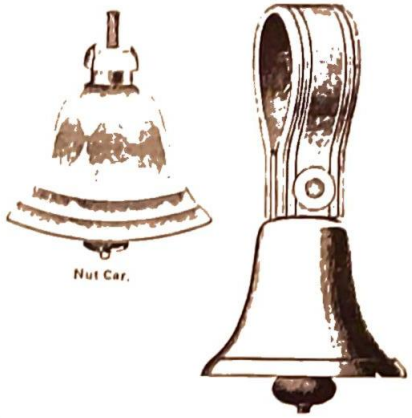
TEAM BELLS.

Rough, Polished, White Metal, or Nickel Plated.



Loop Horse Car.

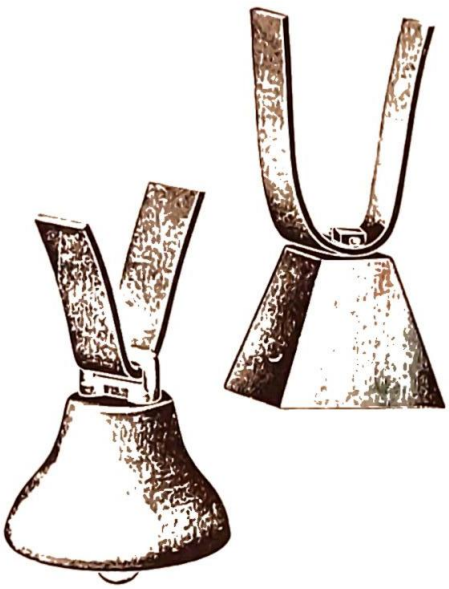




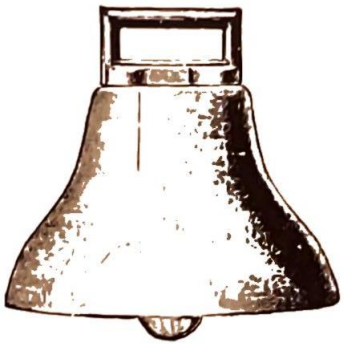
Nut Car.

ALASKA TEAM BELLS.

SHEEP BELLS.

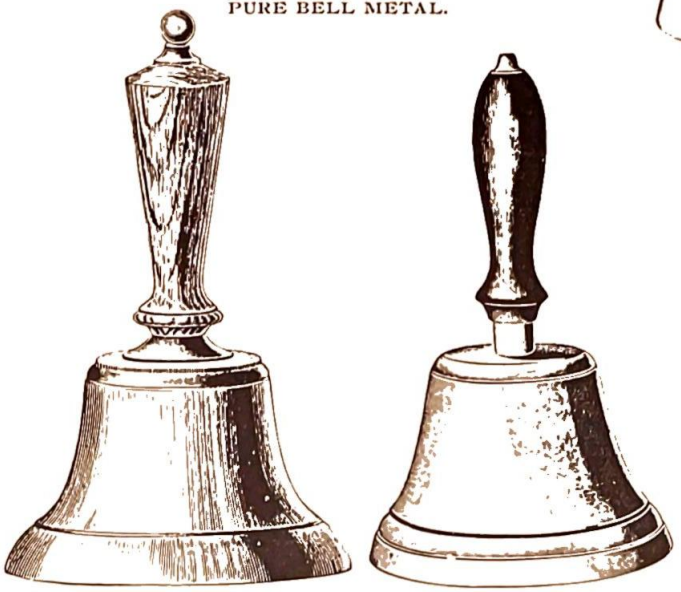


TURKEY BELLS.



MILKMEN'S, AUCTIONEERS', AND SCHOOL BELLS.

PURE BELL METAL.



SWISS COW BELLS.

PURE BELL METAL.

DOG BELLS.

Wrought Brass, Bronze Metal Loop.

PLEASE NOTE: As a birthday present to a magnificent breed of horse we are reproducing this fascinating article from the December 20, 1917 issue of Breeder's Gazette. This article is followed by a report from this year's "birthday Shire show" in Blackfoot, Idaho. Like the Suffolk draft horse, the Shire numbers have been dangerously low for far too many years. The 1970's saw a change in that with many new devoted breeders and importers taking hold of the breed. Numbers grew as demand grew. But, as with most things on the rebound, there have been growing pains. Disagreements about type, grading-up programs, international registrations, blood testing, and more. But inspite of that, or perhaps because of it, the breed and its proponents are doing very well. The latest challenge to this noble breed has come in the form of a very few wealthy fools who in the name of the Shire horse are promoting self-interest. But that will soon pass and the Shire horse will be around for a very long time. All because of the dedication and intelligence of so many of its breeders. LRM

THE SHIRE HORSE'S ANCESTRAL FOUNDATION

Champion's Goalkeeper and Dunsmore Cherrie, both Champions at the London Shire Horse Show.

A Study of Bloodlines, With a List of Noted Sires

by "Chester," Our English Correspondent

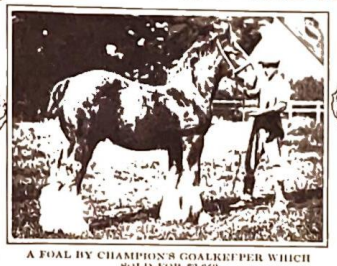
NO breed of pedigree stock keeps truer to line, in the matter of like begetting like, than the English Shire horse. The outstanding feature of a showless season in England has been the sale of a Shire colt foal for $2,662, at an auction held in Peterboro, the center of Shire foal breeding. Now this $2,662 foal, which is but a few months old, was sired by Champion's Goalkeeper, a young horse only just gone to the stud after being twice champion in London. Champion's Goalkeeper, a son of Childwick Champion, was bought at a Tring sale for $20,605, by Sir Walpole Greenwell, when he was but a yearling, but the wisdom of the investment was never in doubt, for the colt grew amazingly, realized all showyard ambitions and is now getting stock which will cause his services to be in considerable request. Given a stretch of life, say of another ten to fifteen years, he is bound to bring in his owner $5,000 a year in service fees.

All this preamble leads up to the moral I wish to draw: that line-breeding in first-class pedigree Shire horseraising is as sure as death. However, the sire of this $2,662 nameless 1917 Shire colt foal is Champion's Goalkeeper; his sire was Childwick Champion; his sire again was Childwick Majestic; and his line of male ancestors goes back direct to Carbon and Harold, to the foundationstone Lincolnshire Lad, and his virile son Lincolnshire Lad 2d. Now this is where the value of the direct male line comes in; Childwick Champion has thrice been the champion sire of London winners, his stock winning thirty-one ribbons in those three shows; but Harold, his common ancestor, was thirteen times champion sire of London show winners and the ribbons won by his offspring at those exhibitions numbered 115. Thus this nameless $2,662 colt foal stands in direct line of succession to a London championship title, both as an exhibit and as a potential stock-getter when it shall be his time to go to the stud.

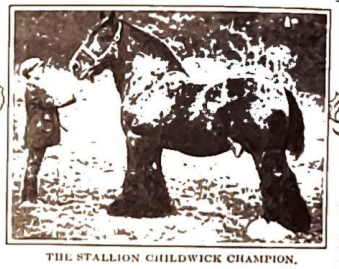
Of course I realize that one must not forget what an important part the proper selection of mares plays, and how necessary it is to get a proper "nick" of blood. The best tip I can give American Shire breeders (and I have studied Shire pedigrees till I can recite them backwards) is to combine, by a not too quick return, a fusion of Lockinge Forest King blood (to be provided by the mare), with that of Carbon, or Harold, (to be provided by the stallion). You will ask what are the "lines" containing this prepotent blood. I will tell you in lines. The great "common ancestors" of the Shire which flourish in England today are: Lincolnshire Lad, Matchless, Major, William the Conqueror, Lincoln and Bar None. They have given us us strong successions of sons which breed as true as moulds and daughters which throw offspring which do not deteriorate but rather improve by judicious crossings back to the top root. Direct male lines hailing from these "common ancestors" are as follows:

LINCOLNSHIRE LAD.	
Lincolnshire Lad 2d	Moors Zealot
Lockinge Manners	Ashby Victor
Harold	Phenomenon 3d
Prince Harold	Eaton Nunsuch
Conquering Harold	Mimm's Champion
Rokeby Friar	Lynn Lion
Carbon	Bridge Sollar's Jupiter
Childwick Majestic	Buscot Trojan
Dunsmore Jameson	Desford Combination
Lockinge Forest King	Dowsby Forest King
Lockinge Harold	Marathon 2d
Markheaton Royal Harold	Norman by Champion
MATCHLESS.	
Calamite	Holker Laureate
Premier	Dunsmore Premier
MAJOR.	
Insurgent	Catthorpe Royal Tom
LINCOLN.	
Warton Draysman	Fashion of Hothfield
Burg Victor Chief	Moors Kitchener
WILLIAM THE CONQUEROR.	
Hitchin Conqueror	Cattlegate Combination
Blythewood Conqueror	John Bull 7th
Prince William	Blythewood Kingmaker
Lockinge Albert	Ivy Jubilee Harold
Menestrel	Holker Mars
BAR NONE.	
Nyn Hitchin Duke	

There you have a string of virulent bloodlines set out under the title of the "old gentleman" really responsible for such excellent sons. Look up your pedigree charts and if you see any of these names rejoice thereat and set about effecting a fusion of blood with females which you feel sure will return to them sustaining and reciprocal flushes and so keep strong the line of blueblood ancestry. Down the left-hand side of each table is a list of stallions now nearly all passed to the happy hunting grounds of equines. You in America will find them sure enough in your pedigrees if you *(Continued on page 118.)*

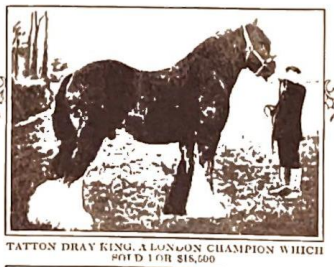


A FOAL BY CHAMPION'S GOALKEEPER WHICH SOLD FOR $2,650.



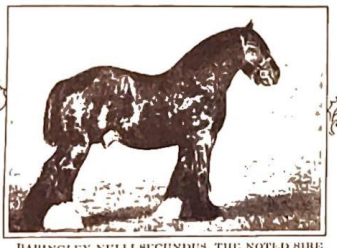
THE STALLION CHILDWICK CHAMPION.

REDLYNCH FOREST KING, A FAMOUS SIRE



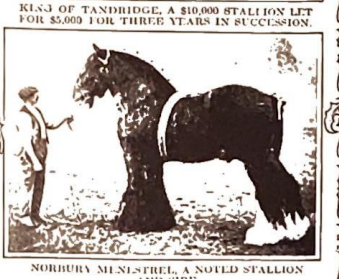
TATTON DRAY KING, A LONDON CHAMPION WHICH SOLD FOR $18,500

KING OF TANDRIDGE, A $10,000 STALLION LET FOR $5,000 FOR THREE YEARS IN SUCCESSION.



DARINGLEY NELLI SECUNDUS, THE NOTED SIRE WHICH SOLD IN ENGLAND FOR ABOUT $6,000.

ROYCROFT FOREST QUEEN, A ROYAL AND LONDON CHAMPION MARE.



NORBURY MENESTREL, A NOTED STALLION AND SIRE

SHIRE CELEBRITIES OF THE SHOWYARD AND STUD IN ENGLAND.

will go far back enough. They are the real foundation sires of your stallions and mares and are the figures in the background which are now working wonders in the constitution and weight of the breed. Down the right-hand side of the tables figure the names of many stallions still with us in England: still getting rare stock and still figuring among the lists of leading sires at the London shows. There are others of course, but they have to establish themselves yet. If any of your pedigrees contain the names of some of these comparatively young sires, you can with confidence return your mares, got by the older horses, to the offspring of these younger stallions. Do not keep on doing it, of course, get in an odd outcross of pedigree blood from another stud, but see to it that it is from one of these direct male lines of the "common ancestry" I have herein tabulated.

Let us analyze, from the merit of some of these "common ancestors" — I like that phrase, for I found it first in the English Shire Horse Society stud book. Harold was thirteen times the champion sire in London, and got 115 winners in those same shows, at which he was acclaimed at the head of the stallion list: Lockinge Forest King was six times the champion sire and got 113 winners; Dunsmore Jameson was four times a champion sire and got forty-six prize-winners; Childwick Champion, the son of Childwick Majestic, in my list, and still hale and hearty, has been champion sire in London on three occasions when his stock won thirty-one ribbons in the showyard; while Premier, also thrice a London champion sire, got nineteen successful ribbons with his stock in those three exhibitions, but classes in London were fewer in Premier's years, 1886-7-8, than they are today.

Out and beyond the list I have compiled and set out, there are other famous foundation stallions which are to be traced in the pedigrees of American-bred Shires. The late James Forshaw always maintained that "What's Wanted" was the best stallion he ever saw. "Honest Tom", a near relative, too, is also spoken of with awe by Lancashire breeders of a hardy type of Shire. His mares were always good. Tom Fowler, now filling and carrying on the Tring stud, has a fine word to say for "Royal Albert", as a getter of females of outstanding merit. Therefore any mares possessed of the breeding of What's Wanted", "Honest Tom", and "Royal Albert" should be procured and put to any stallions from the 'Lincolnshire Lad" line. If they have not been there already.

"Lincolnshire Lad" 2d was not remarkable for his excellence of contour, but the blood was there. He has been described as narrow, light in the middle, and somewhat deficient of muscles; but at the same time he was well topped, full of courage and fire and had enormous quantities of hair (feather). His most famous son was undoubtedly "Harold". Foaled in 1881, "Harold" was the champion in London in 1887 and in the ten years, 1893 to 1902, he easily headed the list of successful sires of prizewinning stock at the London exhibitions. "Harold" gave us as sons of repute "Calwich Blend", "Calwich Blaze", "Conquering Harold", "Harold's Rival", "Markheaton Royal Harold", "Marmion 2d", and "Prince Harold". Their sons again include the modern "Bearwardcote Blaze", "Babingley Nulli Secundus", "Tatton Friar", "Thrupp Rival", "Southgate Honest Tom", "Hendre Champion" and "Hendre Hydrometer". A son of "Harold", by name "Rokeby Harold", won the London stallion championship at the show of 1893, when he was but a yearling.

"Lockinge Forest King" has left behind a remarkable list of sons, all doing well, to-wit: Halstead Blue Blood, Halstead Royal Duke, Ansty Forest King, Barn King, Marden Forest King, Ratcliffe Conquering King and Ratcliffe Forest King. Other of his sons which have got some wonderful stock are King of Tandrige (lately deceased), Redlynch Forest King (champion sire in London in 1914), and Catthorpe Cornelian.

A new power as a stallion is rising in England — Norbury Menestrel, a son of Birdsall Menestrel, and so tracing back to the horse Menestrel, to be found under the William the Conquerer list. His dam, however, was by Childwick Majestic, the sire of Childwick Champion, which got the $20,605 yearling colt Champion's Goalkeeper, which himself sired the $2,662 nameless colt foal of 1917. Norbury Menestrel himself realized $15,750 when sold in the Park situate opposite Box Hill in Surrey which gave him his name, and upon the death of Leopold Salomons. This menestrel blood is very prepotent. It makes an ideal outcross for Lockinge Forest King blood. The way to work it best is to put a Forest King mare to a Menestrel horse and the result is a foal which is worth nothing less than $550 at the moment in England. Try it, if you possess the "lines". My advice to Shiremen in the United States is to "corner" all the Harold, Carbon, Premier, Menestrel and Forest King blood they can. In the days to come they can sing of it as they once sang of "Duchess" bulls and other bits of Bates.

100th ANNIVERSARY NATIONAL SHIRE SHOW

by Sharon McLin

Breeders, owners, exhibitors and fans of SHIRE HORSES had plenty to talk about in early September, when the National Shire Show commemorating the 100th Anniversary of the founding of the American Shire Horse Association was held in Blackfoot, Idaho. Over 100 Shires were shown at halter and in hitch classes; this meant that roughly one of every six registered Shires in the U.S. and Canada was present at the show! Can any other draft or light horse breed match that?

The 27 exhibitors and their families came from Idaho, Oregon, California, Minnesota, Colorado, Wyoming, New York, Virginia, Utah, and Canada. No one has yet added up the "horse-miles" traveled to and from the show, but it would have to be impressive. And in addition to the exhibitors, ASHA members and guests were present from such far flung regions as Alaska, Iowa, Nevada, Ohio and England!

Blackfoot was chosen as the site of this show in part because it was mainly in this area that Shires were preserved as a breed during the 1950's and '60's, and even today about 45 of the horses shown came from within 150 miles of Blackfoot. But the diversity of types of horses shown was dramatic evidence of the resurgence of this breed, and the placings in the halter classes showed that there were outstanding recently imported horses along with excellent horses whose bloodlines were more predominately "American" (i.e. deriving from the Shires imported many years ago).

Nine different exhibitors, from New York, California, Colorado, Wyoming, and Idaho showed in ten special Shire-Only hitch classes which ranged from junior singles and gambler's choice obstacle through six-horse hitches. Some of these classes had as many as 19 or 20 Shires in harness in the ring at a time — a sight not seen on this side of the Atlantic in many years, and one which is unusual even in England.

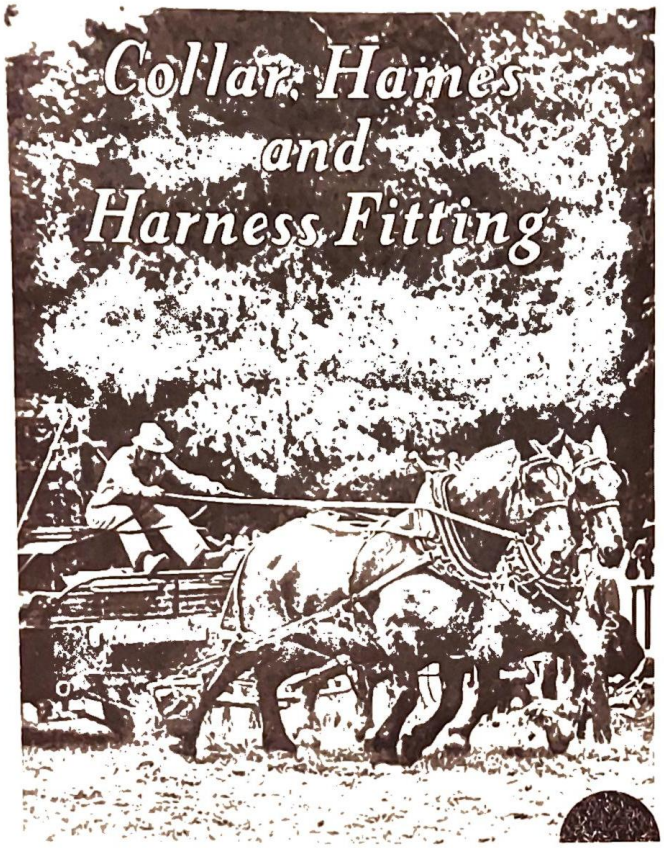
The American Shire Horse Association had a booth at the show where T-shirts, caps, pins, calendars, magazines, horse brasses, and videotapes were for sale, along with memberships in the association and lists of horses for sale by members. (Many of these items are still available; contact Lowell Wagoner, 1687 NE 56th ST Altoona Ia. 50009 for availability and price list.)

Any report on the show should mention the fantastic support provided by ASHA members for this project. With a membership of slightly over 200, no paid staff, and an annual budget usually between $5000 and $6000, ASHA didn't have extensive resources to commit to the show. But its board felt from the beginning that it was important to provide some premium money which would encourage the maximum number of entries, over and above the $1300 in halter premium money from the Eastern Idaho Fair. The response of the membership to requests for class sponsorships and to the special commemorative items offered for sale by the association resulted in raising about $8000 for the show, virtually all of which has been passed through to the exhibitors as premium money, travel expense bonuses, and trophies. One member even donated a brand new forecart (which he'd built) to the show where it was sold for over $600. The ASHA is tremendously grateful to all the Shire lovers who made this possible with donations ranging from $5 up.

In addition, volunteer support of all aspects of the show itself was what made it possible. Manning the booth, acting as ring stewards and obstacle class "judges", typing the lists of horses for sale, helping exhibitors who found themselves short-handed when trying to show four horses in two consecutive halter classes or hook up two teams at the same time, straightening out the confusion if someone forgot to change numbers between classes -- these were only a few of the ways volunteers helped out.

After 23 halter classes, 10 Shire-- Only driving and showmanship classes and a dinner all crammed into two days, the general consensus was, "This was GREAT! Let's do it again ..... in another 100 years!"

Editor's Note: Watch the next issue of SFJ for some Blackfoot photos!!



On these next pages we have reprinted a special surprise. With the exception of this writing we are reprinting the entire original, uncut — unedited, content of the 1944 leaflet (no. 276) as produced by the Horse and Mule Association of America. The original of this material was loaned to Small Farmer's Journal by the kind, generous, and trusting Judson Schrick of Decorah, Iowa.

In collecting this sort of material for 20 years I thought I had come across all of the published leaflets of the Horse and Mule Assoc. I was very surprised to find, during my visit to Schrick's Iowa farm (see article this issue), that there is quite a lot of material yet to uncover.

You may recall in previous issues of SFJ reading something about a man named Wayne Dinsmore who served as the most active and vocal secretary of the Horse and Mule Assoc. in those difficult decades of the 30's and 40's. Dinsmore was an eloquent and persistent advocate for true horsepower at a time when an enormous amount of advertising money was feeding the headlong, crazy rush to the tractor. Dinsmore would have enjoyed viewing the resurgence of the draft horse in the 70's but I wonder what he would think of how we are conducting business now that prices are soft. I'm sure he would have said that NOW is the time to get out there and let people know! Instead of sitting back and wondering if it will ever get 'good' again. Promotion and education are critically important if the draft horse industry is to stabilize.

Some updating notes on the text: The reference to the shortage of leather and the prevalence of fabric collars was due to the effect of the war on supplies. Most of us would be hard pressed to find a harness shop with the time to wash and oil harness for us. And many references in this text take for granted that the reader will be a farmer with extensive horse experience. The statement that collar sizes in Dixie will be smaller than up north will be disputed I'm sure. For the most part, the entire text of this excellent leaflet needs no alteration.

If you, or your club or organization, would like copies of this leaflet (9 X 12 inch) we would be happy to supply them to you. To cover our expense here is a price list as according to quantity;

1 — 5 copies	*$1.75 each*
6 — 20 copies	*$1.50 each*
21 — 75 copies	*$1.00 each*

just write to Small Farmer's Journal Editorial Office, HC 81 Box 68, Reedsport, Oregon 97467.

We hope you enjoy and appreciate this sort of information. If you do let us know and we'll do more of the same. (Note: the illustration on the left is copyrighted and borrowed from the Workhorse Handbook)

Many thanks to Judson Schrick for bringing this leaflet to our attention and letting us borrow it. LRM

Fig. 2—L. J. Smith pair.

Fig. 3—Clarence Harter pair.

Collar, Hames and Harness Fitting

Farmers who are good horsemen know everything that is presented here: yet even they will welcome this leaflet because it will refresh their memories and make easier their task when they have to show hired men or boys how to adjust equipment properly. Good horsemen know from long experience that sore necks or sore shoulders on work stock are due to ignorance or carelessness of men in charge, and are inexcusable.

While it is possible to work animals with sore necks or sore shoulders, it is not humane, and the majority of owners will rest affected animals temporarily. This costs money in loss of time and delay in planting, tilling or harvesting crops, and is wholly unnecessary.

In addition, scars often follow which reduce the price when an animal is sold. The mule shown in figure 6 sold for $25.00 less than it otherwise would have brought because of the shoulder scars and the possibility that trouble might start afresh when the animal was put to heavy work.

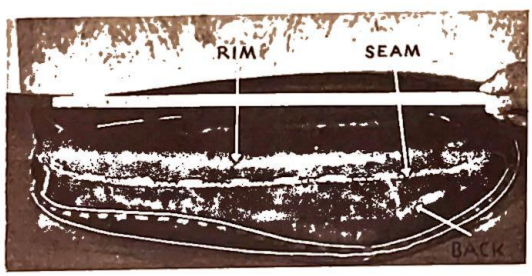
Keeping the necks and shoulders of work stock in perfect condition is therefore an economic question of practical importance, for there are between 11 and 12 million animals that will be at work in harness in 1944.

Knowledge of the causes of sore necks and shoulders, and avoidance of such causes, will keep work stock free from such troubles. Good farmers know this and are watchful to see that sores do not start.

The pairs shown in figures 2 and 3, and the pair on the address page, are present joint holders of the world's record in pulling contests for pairs weighing 3,000 pounds and over. The photographs were taken at Centerville, Michigan, September 24, 1943, when the three pairs tied for a new world's record. They exerted a tractive pull of 4100 pounds, equivalent to pulling 10 plows cutting furrows 14 inches wide and 6 inches deep, through ordinary corn belt black loam soil, or equivalent to starting, for 15 or 20 consecutive times, a load of 53,246 pounds on a wagon over granite block pavement.

The three pictures are presented here because they show excellent fit of collars, hames and harness, under maximum strain. Notice that although the horses are exerting their utmost efforts, the throats of the collars almost, but do not quite, touch the throats of the horses, hence there is no choking. Hames fit snugly into the seams of the collars for their entire length. The belly bands are strong, and buckled at such length as to keep the tugs pulling at right angles to the shoulders, from collars to belly band. Were it not for such proper adjustment of belly bands, the tugs, which are seen to rise slightly from belly band to singletree as the horses pull, would draw the collars upward against the throat and choke the horses. All three pairs have extra hame straps holding hames together across the top. The collars have been fitted closely to sides of neck by collar pads, which also spread the load over a larger bearing surface on the shoulders. On cover, Henry Marcks pair.

Fig. 4—Collar parts: how to measure.



Adjust Individually

To avoid sore necks or shoulders, each work animal should have an individual collar, kept exclusively for that animal. This is as important to work animals as individually fitted shoes are to a marching soldier.

Fitting a collar to a new work animal, whether it is purchased or raised, should be done by testing with different size collars till one is found that fits. If it is not practical to take the animal to the harness shop, an approximate preliminary fit can be obtained by testing with collars that belong to other animals, till one is found that seems about right, then measuring for length as shown in figure 4.

There are three types of collars: Regular, half sweeney and full sweeney. The first will fit long, flat, slender necks; the second fits the neck that is a bit heavier, slightly thick at the top; the third is intended for a stud like neck, very thick near the top.

Collar sizes designate their

Fig. 5—Collar parts: proper way to hang.

Fig. 6—Scars from collar sores.

length: thus a size 18 measures 18 inches from top to bottom just inside rim, when collar is buckled — size 21 would measure 21 inches — see Fig. 4 for method of measuring. Small animals take size 16 or smaller, very large draft horses size 24 or larger. The majority of collars sold north of the 40th degree of latitude (see any map of the United States) are sizes 20, 21, 22 and 23: south of that they usually are smaller, sizes 17 and 18 predominating in the main cotton raising states.

There are 2 kinds of collars: (a) those made of all leather; (b) other than all leather. The latter frequently have had a ticking (a cotton fabric) face, and split leather back and rims. With the present great shortage of leather, many collars will have duck for backs and collar webbing for rims. These are cotton fabrics of heavier, stronger weave.

Collars other than all leather are serviceable, lasting 3 or 4 years and sell at enough lower prices to justify their use when all leather collars cannot be obtained.

In fitting a collar, it should be put on and so buckled that the sides of the collar are snug enough against the neck to make it feasible to pass the fingers only, held flat, between the rim of the collar and the sides of the neck, when the collar is pressed or drawn strongly back against the shoulders. See Fig. 9 which shows a collar that is too wide; the whole hand goes in, instead of fingers only.

While collar is so pressed back, length should be such that the flat hand can be turned up as shown in Fig. 10, page 3. Thus turned, the hand crowds against the throat. If measured, a ruler will show about 2 inches free space between throat of horse and collar, when collar is drawn strongly back against shoulders by pull on tugs—all a man can pull—or by causing the horse to step forward against a load till collars are firmly pressed against shoulders.

Getting the right length of collar is very important. If too short, as shown in Fig. 7, or too long, as shown in Fig. 8, trouble will result. Too short a collar presses down on top of neck and up against throat when pulling, causing a sore neck on top. It also will choke a horse by pressure against windpipe on heavy pulls. This will cause a horse to fall, from choking, and will discourage the animal from further maximum exertion. In addition, too short a collar brings point of draft too high, and sores high up on shoulder may result. A collar that is too long brings point of draft too low and too near the shoulder point. This will make a sore very quickly, as it causes constant friction when shoulder point moves forward and back. Too wide a collar, even when length is right, will cause pressure too far away from the neck, i.e. near the shoulder edge and will cause a sore there.

After a collar of the right size and shape has been found, it must be fitted, regardless of whether it is a new collar, or an old one to be used on a different horse.

Fig. 7—Collar too short and narrow.

Fig. 8—Collar too long; hame fits collar.

One good way is to soak the face only of the leather collar for an hour in a couple of inches of luke warm water in a tub (where a large enough tub is not to be had, luke warm wet cloths can be laid over the face to soften it). It then should be put on the horse, and the teamster should adjust the hames and harness carefully, and work the horse moderately. The collar being damp will adjust itself to the exact shape of the horse's neck and shoulders. Collars other than leather need not be soaked (face only) for more than half an hour. An owner or manager should check the fit of collars frequently. Collars that fit when work starts often prove too large, especially too wide, when horses grow thinner from hard work. A pad then should be used to make the collar fit. Pads usually are 2 inches longer than collar sizes—thus a 22 inch collar would call for a 24 inch pad. They must be open at the throat—see pictures of pulling teams.

Correct hame adjustment is extremely important. If the hames do not lie in the collar seam for the full

length of the collar, they do not fit. If the top hame strap is in the shape of an inverted "U", as in Fig. 12, rather than lying straight across the top of the collar as in Fig. 9, the pull of the tugs will spread the hames at the top and cause sore shoulders. If hames are either too long or too short, they cannot be adjusted to fit the collar satisfactorily. The only remedy is a set of hames that does fit the collar. Hame sizes express the length from loop where top hame strap is used, to bottom loop, measured as a taut bowstring would, and correspond approximately to collar sizes: thus a 24 inch collar should have a 23-24 inch hame, which will fit either a 23 or 24 inch collar. Even these must be correctly adjusted. In Fig. 11 the top hame strap is one loop too low causing hame to be away from seam; see fingers between hame and collar Fig. 11. If hame strap at top is put one loop too high and left loose as in Fig. 12, it will cause the hames to drop too low, leaving a gap between hame and collar at bottom, shown by fingers in Fig. 12. This is apt to cause a sore near shoulder point.

Too long a hame,—for instance a 24 inch hame on a 21 inch collar,—will cause a sore shoulder. If drawn

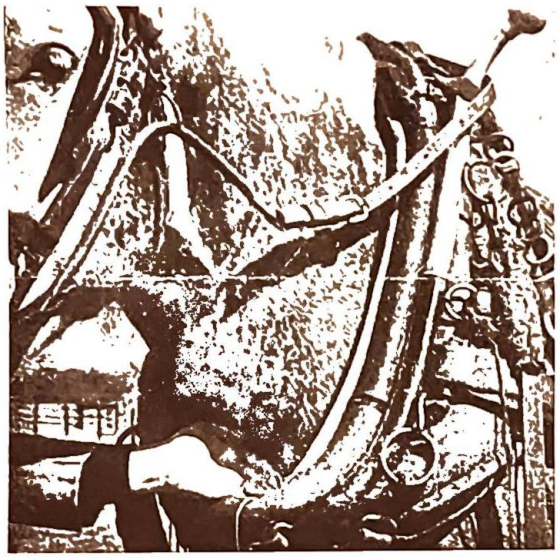


Fig. 10—Same collar as in 8 and 9, made to fit by using collar pad.

snug in against seam of collar at bottom, the point of pull on the hame is above the true point of draft on shoulder and will make a sore high up; if allowed to drop, so there is a gap between hame and collar at bottom as in Fig. 12, it will make a sore near point of shoulder. Too short a hame,—say a 21 inch hame on a 24 inch collar,—will make a sore near point of shoulder if hame is drawn close to collar seam at bottom; but if it is set up high,—that is adjusted to fit close to seam at top rather than at bottom of collar,—it will make a sore high up and near outside edge of shoulder.

The collar should be snug, but not too tight, or too loose, at top, where it rests on the neck. There should be space on the sides to run the fingers clear to collar cap at top of collar, but no more. Collars that are too narrow at top, or on which hames are buckled too closely together at top, will pinch the neck and chafe it, causing sores on the sides near the top. If collar is too wide, it will work back and forth, sideways, chafing top of neck causing a sore to start there. Another

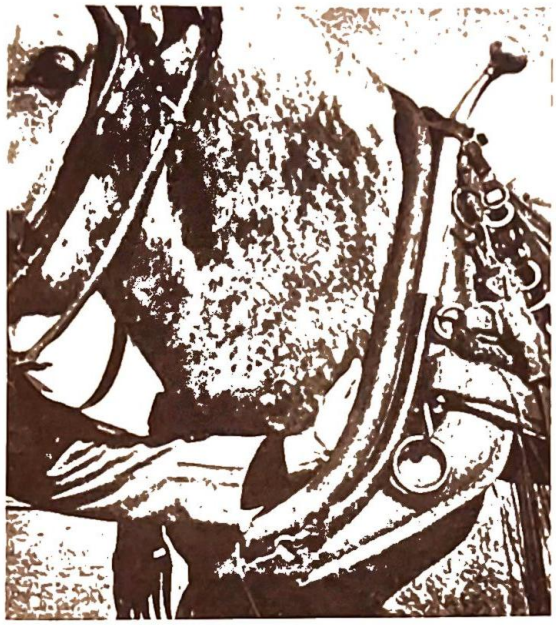


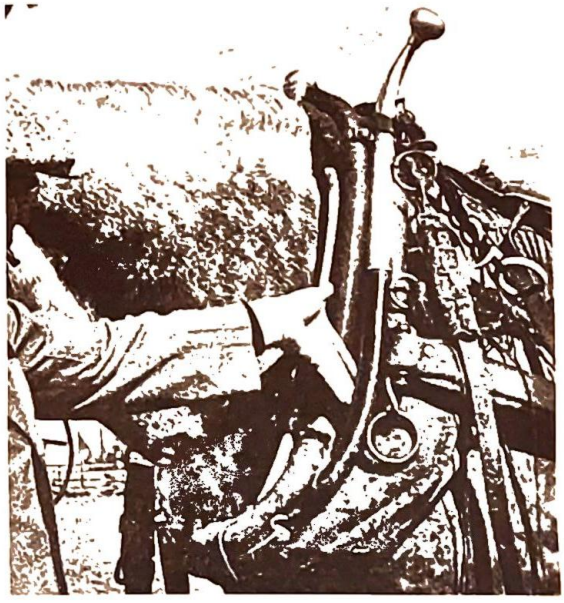
Fig. 9—Same as 8, is also too wide.

frequent cause of sore necks is too much weight on the neck yoke, as when a mowing machine or other implement has too light a driver to balance the weight of the tongue. The solution is to fasten a weight—a stone or concrete block—under the seat, so the combined weight of teamster and added object will balance weight of tongue, taking all weight off neck yoke when driver is on seat, thus freeing downward pressure from top of neck of work animals. It is important to do this at the outset, so sore necks will not start.

It is extremely important (in fact, absolutely necessary) to get collars that fit the horse or mule, and then be sure that hames are the right size for the collar. If you do not have and cannot obtain a correct size collar for each horse, use collar pads to make the collar fit; but be sure the pads are new each season, clean and of the right size to make the collar fit the horse properly.

Good horsemen keep the horse's neck, shoulders and collar clean at all bearing surfaces. Be sure the mane

Fig. 11—Top hame strap set 1 loop too low, hame gaps away from collar seam.



does not work back under the face of the collar. Stop occasionally at ends of field to give horses a breathing spell, and at that time raise the collar away from shoulders, wipe off dust and sweat, and give the shoulders some opportunity to cool. Observe frequently to see whether the hair is wearing short at any point, as this is the first sign of chafing, which precedes an open sore. If this is in evidence, correct adjustment of collar, pad or hames at once. It will take a few minutes at the noon hour to remove the harness and collar, but it will pay, as it gives the shoulders an opportunity to cool.

At close of the day's work, washing the shoulders with a cold water strong salt solution will help keep them in healthy condition. It is well to wipe the leather collar face clean with a damp cloth, and then wipe lightly with another cloth soaked in harness oil, as soon as collar is taken off. Do not rub oil on collar cap, but keep it clean and smooth. If collars other than leather, or pads are used, wipe them clean but do not use oil. If unbuckled to take off, or put on, collar should be held with both hands, left arm passed under throat of horse, to prevent any strain on collar throat while collar is unbuckled: and collar should be buckled before being hung up. Collars always should be hung bottom side up, face out as shown in Fig. 5, on a peg with rounded edges, so pressure comes on the throat of the collar, not on the cap, which is the separate curved piece of pressed sole leather, as smooth as glass, which rests on top of the neck to protect it from chafing. Every morning when the horse is harnessed, wipe the hand over the face of the collar again and make sure that it is smooth. These things take less time than it takes to tell them, but are the little things that go far toward keeping shoulders in perfect condition, if collar and hame adjustment are right to begin with.

Fig. 13—Putting collar on without unbuckling.

Many farmers who are especially successful in avoiding sore necks or shoulders, do the fitting themselves very carefully, and do not allow collars to be unbuckled again till readjustment is necessary, which they do themselves. Such men have their hired help or boys take collars off and put them on over the head as shown in Fig. 13. This may seem odd to men unaccustomed to it, but horses become used to it very quickly and the owner or head teamster has the satisfaction of knowing the collars are being used precisely as he adjusted them.

This plan works well with horses, but not with mules. Their long, sensitive ears make them object strongly and it is difficult to persuade them to accept the "collar over head" plan.

As the collar is widest at point of draft it should be put on as in Fig. 13, and turned over about 8 inches back of the poll, then slipped back to shoulders as in Fig. 14. In taking off, reverse the process: halter, not bridle, should be on in either case.

Fig. 12—Top hame strap too loose, hame drops too low.

Long Life for Harness

Giving long life to harness is simple. All that is necessary is to keep it clean and well oiled with a good harness oil. Best results are attained by taking the harness apart, unbuckling all straps, washing them with a very mild soap and warm water, rinsing each strap as washed in clean water and hanging up to dry. By the time one is through, the first straps will be dry enough to oil. A sponge or soft rag will hold enough oil to make hand rubbing effective. Most farmers take their harness to harness repair shops where it is oiled by being placed in a wire basket and dipped in a large tank of warm harness oil for 15 or 20 minutes, then suspended above the vat till oil drains off. This is fairly effective, but the man who takes his harness apart and washes it thoroughly before it is oiled gets a much better job; for dried sweat and dirt prevent oil from penetrating to the leather beneath.

Repairing promptly likewise adds greatly to life. A leather punch, some rivets, an awl, and some linen thread and harness wax will enable anyone who has seen harness repairs done, to make simple repairs as soon as loose stitches appear. The old adage—a stitch in time saves nine—is especially true of harness.

Longer life of harness also is obtained where harness is hung in a harness room away from the ammonia fumes rising from stalls; but this seldom is considered practical for lack of time, and harness generally is hung on a peg on the wall about 8 feet behind the work animal it is used on.

It is impractical to wash, oil and repair harness in cold weather unless a warm room is available. Leather and oil must be warm for a good job.

At present harness repair shops have neither time nor help to wash harness; hence it is up to the owner to have it taken apart, washed and all dirt and sweat

Fig. 14—Collar in place.

scraped off the wet straps with a sharp edged piece of hard wood, (never use a knife to scrape leather) before taking it to the harness shop to be dipped in a tank of warm oil, if he wants a real good job. Many owners prefer to oil their own harness, but after doing it a few times, have a higher appreciation of the valuable service rendered by their local harness shop.

Management of Farm Work Horses and Mules

Farm horses and mules should be well fed and strong when hard work impends: yet feed alone is not sufficient. Wise management likewise is essential.

Feeding is simple. Good clean grain, sweet smelling and free from mold, mustiness, worm casts or weevils and green, leafy hay, fresh smelling and free from mold, with access to good pastures nights, Sundays, and rainy days, are all that are needed. Moldy, musty feed will kill horses or mules.

Corn, oats and barley are the grains most relied upon. Barley must be crushed. All kinds of hay are good if cut early, and cured without getting wet or heated. Look to color and leafiness: if green, fine in stems, with an abundance of soft green leaves and free from dust, it will be palatable and will give good results.

Fig. 16 — Wiping collar pad with clean damp cloth.

Where possible, alfalfa hay should constitute 1/3 or 1/2 the hay ration. If not available good clover or good mixed clover and timothy hay will do very well if fed in the same proportion. The rest of the hay used can be of any variety, so long as it fills qualifications stipulated above.

The amount to be fed will depend on how hard the work is and what pasture is used. At ordinary farm work one pound of grain and 1.2 pounds of hay per 100 pounds live weight, is ample. This means 14 pounds of grain and 16.8 pounds of hay for a 1400 pound work horse or mule. Where the work animals are turned out nights and Sundays on a good mixed pasture that contains several different kinds of grasses and legumes, they will of their own choice eat less hay, usually by half: but even then they should be allowed whatever hay they will clean up morning, noon and evening. When pasture contains abundant legumes, grain can be reduced one-fifth.

Work animals allowed access to pastures sweat more when at work, but are healthier, are much less apt to have digestive upsets, and their feet, eyes and bones keep in better condition. It takes a few minutes to bring them in from a nearby pasture, in the early morning; but a handy cow pony which should be on every farm, kept in the stable at night for use in bringing stock in from pastures makes the job easy.

Work animals whose regular grain and hay is supplemented by being out on pasture at night are cooler and more comfortable in hot weather, require less grooming, can get water and salt whenever they feel like it, require no bedding, and but little work in cleaning stables.

Despite these advantages, some farmers insist on keeping their work animals in stables on dry feed most of the time. In such cases, care should be taken to allow salt where they can get it at any time, and the animals should be watered the last thing before the owner or driver goes to bed. A higher percentage of alfalfa or clover hay needs to be fed, to stimulate normal evacuation of solid and liquid excrement. Plenty of bedding likewise should be provided, so the animals can get as good rest as the owner.

Fig. 15—Well fitted harness. Back band keeps traces pulling at right angle to shoulders. Harness should fit animals, but not tightly enough to cause friction anywhere.

The vast majority of middle west farmers who are good horsemen favor and use the pasture system to supplement adequate grain and hay for their work animals.

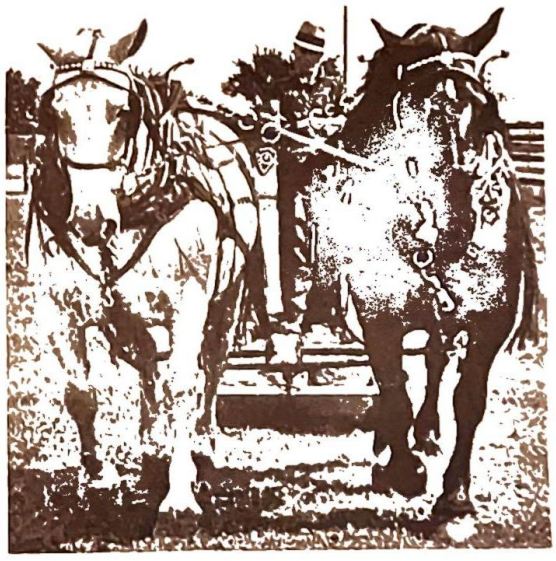
Grooming

Grooming with a rubber curry comb and bristle brush to take out surface dirt and stimulate skin circulation is desirable. Well groomed animals thrive better; but lack of time generally makes grooming of farm work stock brief. Pastured animals require but little grooming, especially if a pile of sand is placed near where they are turned out. They love to roll in sand. How to care for the feet of your horses and mules is covered in a separate booklet, available on request.

Leaflet No. 276

HORSE AND MULE ASSOCIATION OF AMERICA, INC.
(Formerly Horse Association of America)
Wayne Dinsmore, Secretary

Fig. 17—Well harnessed: lines keep horses' heads as far apart as centers of their singletrees, hence they pull straight ahead.



FALL HARVEST FESTIVAL 1985
HUDSON VALLEY DRAFT HORSE ASSOCIATION

Photos by Amos and Jude Holdsworth

by Jude Holdsworth

The H.V.D.H.A. held it's annual Fall Harvest Festival on Sept. 28th and 29th, 1985 at Long Hill Farm, owned by Bob Brennan, in Hillsdale, N.Y.. About 50 horses were kept busy, either working on one of the five binders, or on wagons picking up corn. Spectators helped load the corn and seemed to enjoy the work. A chicken barbeque was served up by the local fire department, venders sold maple syrup, sheepskin crafts, and Draft horse T-shirts, and a good time was had by all. The H.V.D.H.A. also holds a Spring Plowing Festival in early May, spring and fall trail drives, and an annual banquet in February. Anyone wishing more information can contact H.V.D.H.A. c/o Holdsworth, Travis Rd., Hyde Park, N.Y., 12538.

Above: The kids all enjoyed the wagon rides into the fields and back. Sometimes all that was visible were little heads sticking up out of the corn.

On Next Page: Three Mules owned by Jerry DeGennaro of Feura Bush, N.Y. head back out to the field for another load.

On Next Page: Bob Brennan (foreground) pitching in, loading his corn with help from unidentified spectators. Mules belong to Jerry DeGennaro.

Above: Three Belgians on a binder, taking a break. They are owned by Charlie Lent, of Purchase, N.Y.

Left: Two teams stand patiently, as a young participant helps load, stalk by stalk. The team in the foreground is owned by the Gippert family of Saugerties, N.Y., and the black and white team is owned by the Ingrams of Olive Bridge, N.Y.

Right: A young teamster looks at home with the lines, as the Belgians, owned by Chris Sommer Hoff of Ancramdale, N.Y., wait their turn on the binder.

Above: Mike Wilson, of Oxford, Ct. holds the lines of his young team "Waylon" and "Willie" while willing hands load his wagon.

Above: Rick Gray, of Kerhonkson, N.Y. and his Belgian team.

STRINGBEANS & the IRS

by Gail Luttmann

Notice of my impending I.R.S. tax audit left me with mixed emotions. On the one hand, I could scarcely afford time away from an already hectic spring schedule on my small Tennessee farm. On the other hand, I've always thrived on new experiences and, having never been audited before, I was curious to find out what it was all about. Little did I guess that I was in for a lesson in canning string beans.

Between planting, hatching, and repairing winter damage, I spent the two weeks preceeding my scheduled appearance at the I.R.S. office gathering required financial records from their respective basement files; wondering if I would remember what I did and did not spend three years ago when I can't remember what happened to money I had just yesterday; and worrying I'd have to fork over some of the meager and fast dwindling cash set aside for the development of my recently acquired small farm. The latter possibility put a decided damper on my enthusiasm for this particular new experience.

On the morning of the audit I eased my aging Dodge pick-up into a space in from tof the First Tennessee Bank building. While I gathered the cancelled checks, receipts, and utility bills scattered during the bumpy drive on the unpaved roads to town, the sky opened up with a thunderous crash and a downpour of rain. An ominious beginning, I thought with a shudder as I scuttled inside with my armload of soggy documents.

I made my way with trepidation to the dreaded I.R.S. office on the third floor. Half expecting to find some grim-faced black-suited executioner there, I was thrown off guard by the casually dressed, pleasant young man who greeted me. I had to warn myself not to be fooled by his disarming ways — I'd heard how tricky these I.R.S. fellows can be.

I sat down and arranged my papers, then listened to a recitation of my rights while my hands shook nervoulsy in my lap and my mouth went cotton dry. I jumped visibly when the auditor looked up from the notes he'd been reviewing.

"Before we get started, do you have any questions?" he asked.

Yes! Why me?

"Because your farm is showing a loss," he told me. "The I.R.S. wants to know why."

That's not an easy question for a small farmer to answer. I've long ago come to the conclustion that, to paraphrase Franz Werfel's immortal words, "To a fellow small farmer, no explanation is needed. To all others, none is possible." But I had to make some response to the I.R.S. man, so I patiently launched into an explanation of previously neglected fields requiring reclamation from their overgrownth of scrub brush and junk trees before the first crop of hay can be planted. About the dangerously leaning, rotted old barn needing rebuilding and fences wanting mending before the first cow can be brought in. About my newly planted orchard taking some five to seven years before bearing its first income-producing fruit.

The auditor wrote all this down on pre-lined paper, tearing off and laying aside each sheet after jotting only a sentence or two at the top. I shivered in the over air-conditioned room, judiciously managing to keep my mouth shut about the costly waste of both paper and electricity.

As odd as the first question seemed to a struggling farmer, the ones taht followed got progressively stranger. Soon I was biting my tongue before each answer, knowing that it doesn't pay to get smart with the I.R.S.

"Do you hire domestic help?"

No, but I could sure use a couple of hired hands.

"Do you keep a foreigh bank account say, in the Cayam Islands?"

Hah! I have a hard enough time keeping sufficient funds in my local account!

"Where did you go on your last vacation?"

My What? "Vacation" is practically a foreign word in a farmer's vocabulary.

"How much do you spend on food?"

Very little. I get by mostly on canned goods from my garden.

The I.R.S. man sat back, fixed his piercing blue eyes on me, and asked the strangest question of them all. "Do you can string beans?"

Unsure how my answer would affect my tax liability, I responded somewhat tentatively. "I can snap beans — I've never been able to get the knack of de-stringing string beans."

Putting his pencil down, the young auditor showed genuine interest for the first time that morning.

"My father lives in the city and grows string beans in his back yard," he said enthusiastically. "Has ever since I can remember. I live next door now, and when the beans are ready for picking, my wife and I get a bucket full every evening. It takes us just an hour to string and snap seven quarts, enough to fill our canner."

He showed me how to de-string and snap an imaginary bean with a few deft flicks of his wrist. "Nothing to it," he said. "And you can't beat the flavor of old-fashioned string beans."

Suddenly all official I.R.S. business agian, he picked up his pencil and glanced back at his notes. What he said next, nobody needed to tell me.

"Your farm will have to start showing a profit."

Thats the whole idea, I assured him.

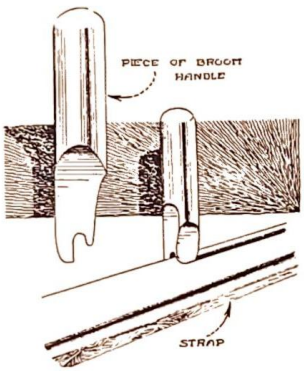
"The I.R.S. will give you two more years to do it," he said.

I wanted to ask in sarcasm, "Or what?" But since two more years fit perfectly with my own time-table, I didn't argue with the man.

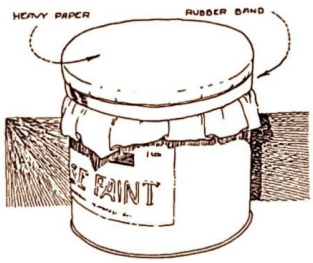
He stood with a smile, shook my hand, told me there would be no change in my tax status, and said I was free to go. With a barely disguised sigh of relief, I gathered up my disarray of financial records.

Driving home past fields of grazing cows and sprouting corn, I reflected that the audit hadn't been such an unpleasant experience after all, which goes to show, I suppose, that a man who puts up green beans can't be all bad — even if he does work for the I.R.S.

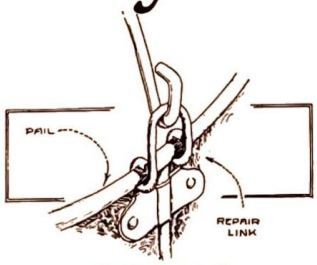
Handy Andy's Corner



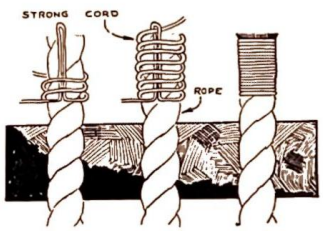
Tool for grooving leather



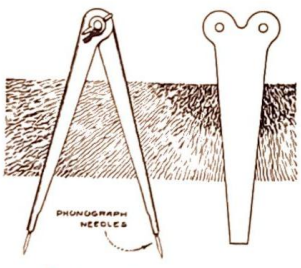
Emergency cover for a paint pail or can



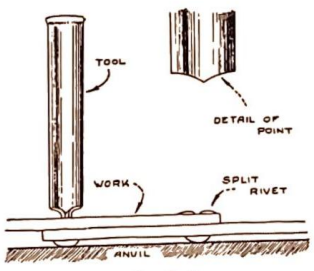
Repair for a pail



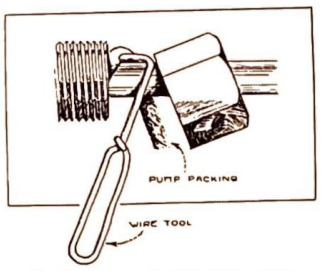
How to fasten rope ends



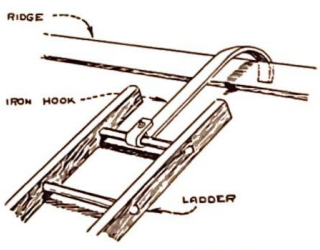
Dividers made of sheet metal



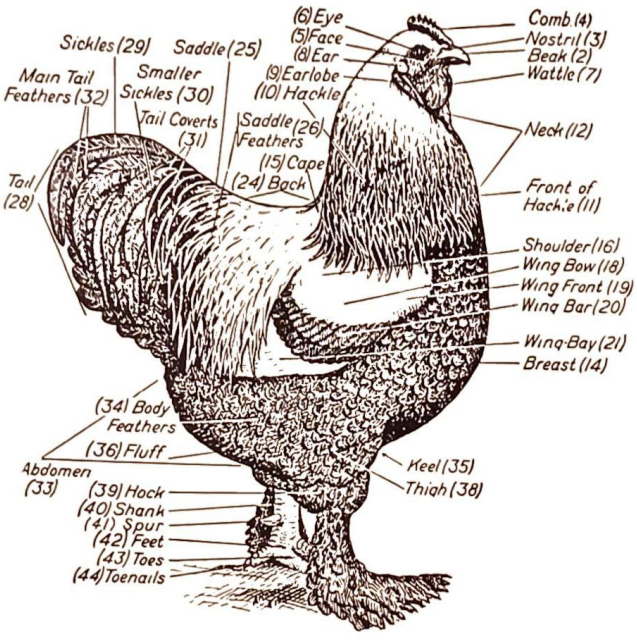
Tools for riveting

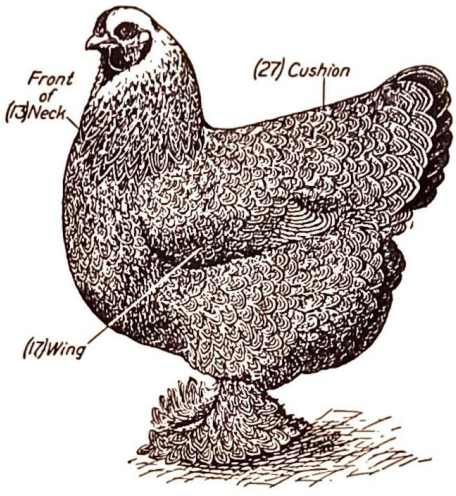


Tool to make packing pumps easy

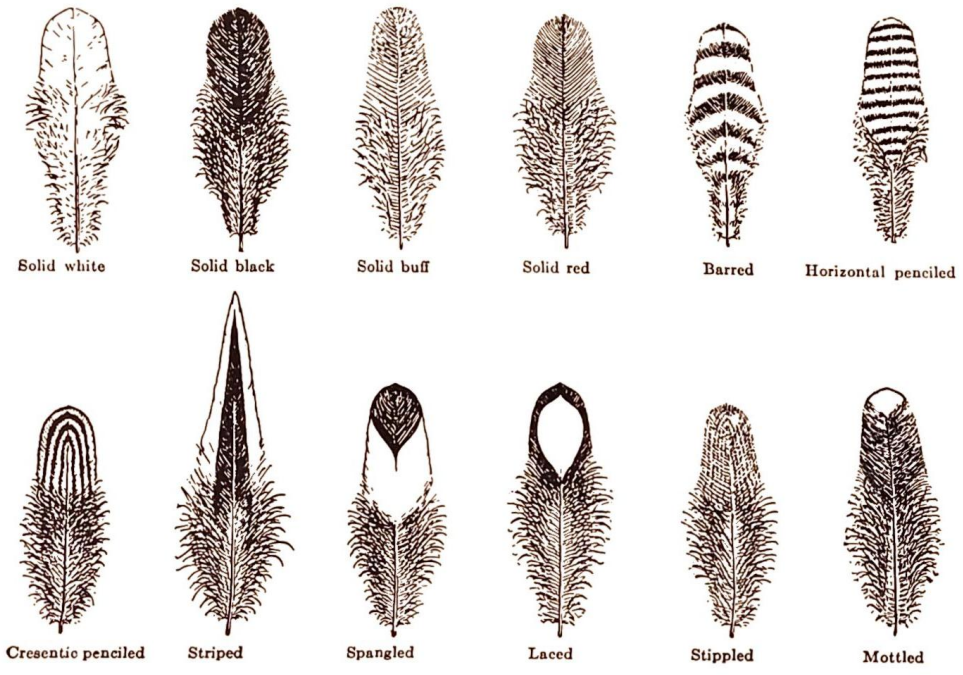


Hook to secure the ladder

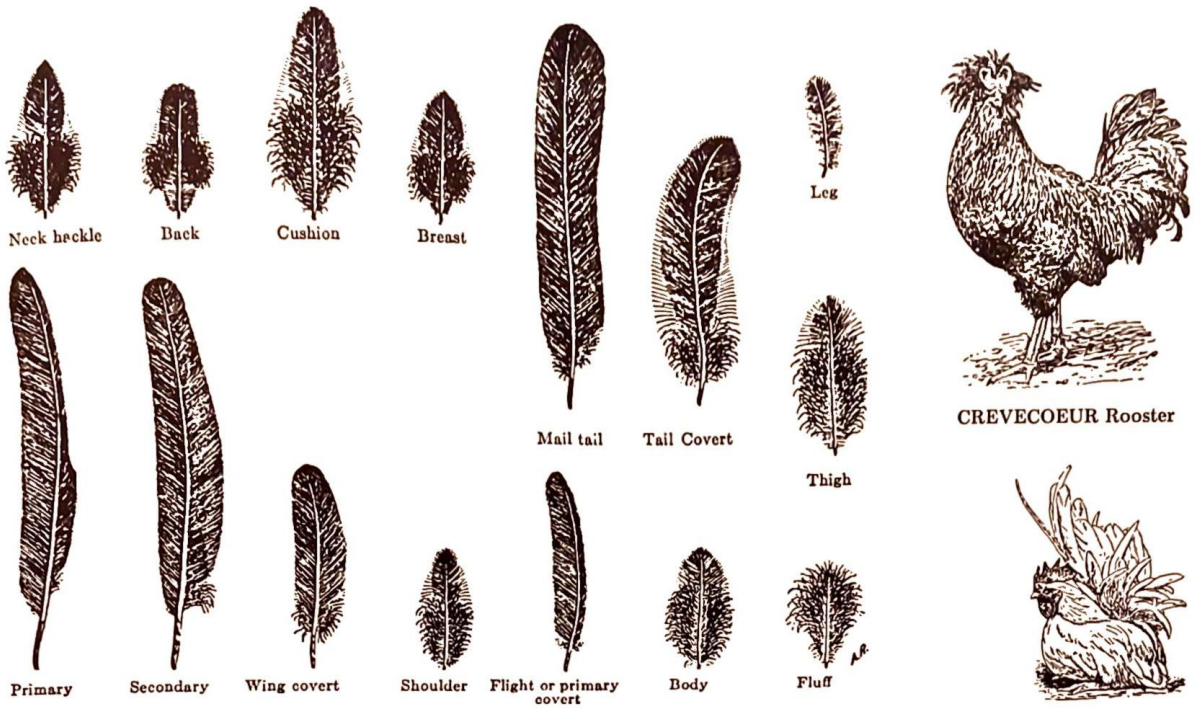




POULTRY FEATHERS: shape, position, & pattern.



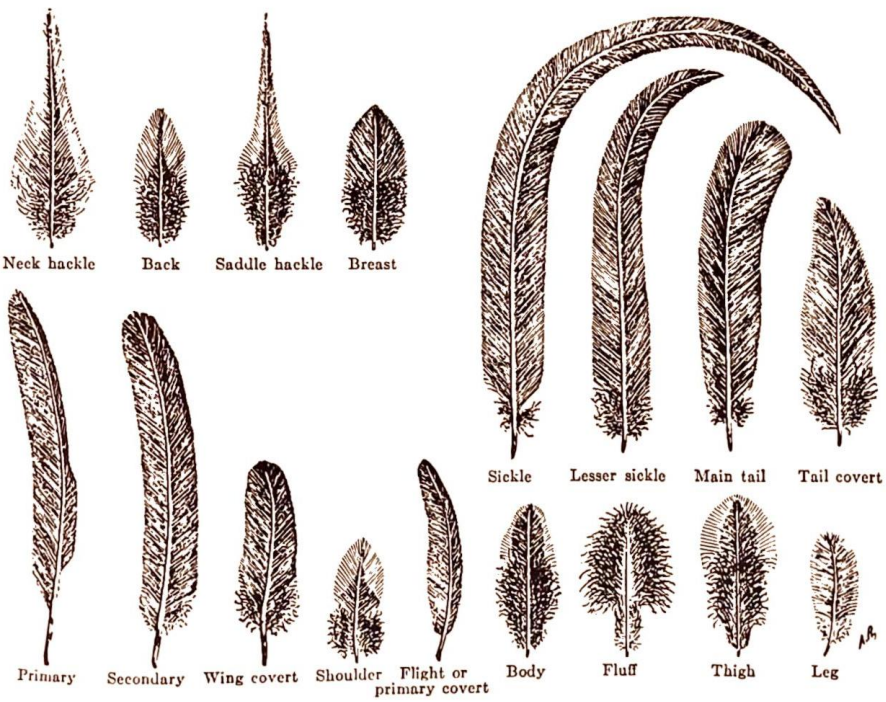
FEATHER COLOR PATTERNS



FEATHERS OF THE FEMALE

CREVECOEUR Rooster

WHITE JAPANESE BANTAM



FEATHERS OF THE MALE

The SILKY Breed

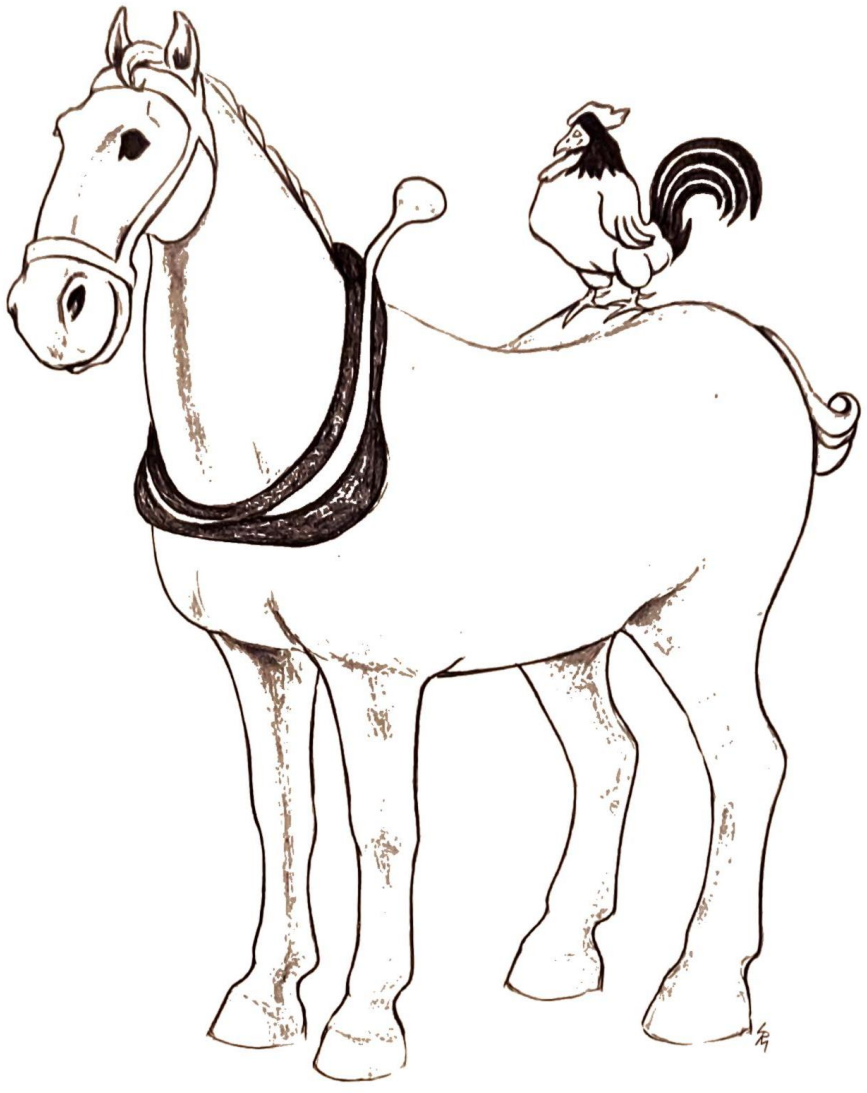
RED PYLE GAME BANTAM

FOR OUR CHILDREN

COOPER AND JOHN

Many of you wrote to me, personally, asking that a special children's section of Small Farmer's Journal be dedicated to the memory of my seven year old son, Ian Lewis Miller. When he was alive, Ian loved the impromptu stories and songs that his dad, brother, sister and he would come up with. And he was always pestering me to do drawings of the characters we created together. He was especially fond of the Cooper and John drawings and stories. He would get a big kick out of seeing them in the Journal. And rather than to dedicate this to Ian's memory, I know he would give his nod of approval as I dedicate this in his name to all of our children past, present, and future. Hold 'em close, hold 'em dear.

Lynn 'Daddeo' Miller



The Umber family were nice, kind people who worked very hard on the farm they loved. Difficult times had come to their farm.

Bob and Betty Umber had three children; there was Brian, the oldest — Bessie, the practical one — and Billie who everyone called 'Beetlebo'.

The Umber farm was 90 acres of good, well cared for land in the sleepy little valley called Sweetdale in a far corner of the Province of Cowsansows in the mythical land called Treefoil.

OUR STORY BEGINS

The government of Treefoil had entered into a trading and borrowing arrangement with the evil world bank. The Treefoil senators didn't know the world bank was evil until after the papers were signed. When Treefoil couldn't make the surprise payments on time to the world bank all the businesses in all the provinces, including Cowsansows, fell onto hard times. The world bank said they would shut down the country if it didn't pay up and the government of Treefoil didn't know what else to do so it put pressure on everybody to help with the debt.

On the Umber farm it meant that heavier taxes and larger payments had to be made or they would have to move and the government would take their farm and sell it. Times were indeed bad.

Now, Beetlebo had two special animal friends. They were Cooper, an enormous blind work horse, and John, a very smart crotchity old rooster. Neither Cooper or John did anything of value on the Umber farm, except to be friends. They were there because Bob and Betty felt they deserved a peaceful secure home. And Beetlebo enjoyed spending most of his spare time with them.

It was a rainy Spring morning when Beetlebo overheard his Mom and Dad discussing the farm's future...

"Honey, we simply cannot afford any free-loaders — everybody's got to pay their own way around here or they'll have to go."

"Yes dear, but Cooper and John are different. They have no place to go and they can't care for themselves. And what can a blind horse and an old rooster do to help, not much if anything."

"I know you're right but it doesn't make things any easier..."

Beetlebo later told Cooper and John about the conversation. He often talked to his friends. They didn't answer, of course, but just the same he knew they listened. He went on to explain to them about the messy situation between the Treefoil senators and the world bank.

After Beetlebo had gone, Cooper and John got to talking in that way that animals have of speaking to one another. It can't be explained but it sure does work. Here's what it would have sounded like if they were talking like we do...

"If I could only SEE there are all sorts of things I could do to help around here." said blind Cooper.

"Like What!? You aren't gonna get this country out of debt with or without your eyes! You may be strong and willing but you're dumb." said crotchity old John rooster.

"That's not very kind, John. Don't you want to help out these good folks? I would sure hate to see them lose this farm." said gentle Cooper.

"Well, I would too. I just get frustrated. Being old and small I just feel totally useless." said John.

"I'll bet, with your brains and my strength and both of us willing, we could do some things to help." said Cooper with a firm voice.

And so they must have talked and talked and finally came up with a plan.

That night when the Umbers were sleeping, John and Cooper together devised a set of signals. The old rooster would sit on Cooper's back and peck out signals to tell the blind horse when to turn, when to stop, and all sorts of things. Why, they came up with a complete pecking language.

It took awhile but by morning they had wangled Cooper into a work harness and hooked him to a walking plow. When Bob Umber looked out the kitchen window, just as dawn was breaking, he couldn't believe his eyes! There was Cooper walking a straight line and PLOWING the garden with old John rooster sitting on his rump and occassionally pecking at the horse. And both animals seemed to be smiling!

The whole Umber family lined up along the fence and cheered Cooper and John as they continued doing a beautiful job of plowing the garden.

From that moment on Cooper and John, assisted by Beetlebo, Brian and Bessie, helped out with all kinds of jobs on the farm. The horse and the rooster were very happy with their new found abilities and sense of purpose.

MEANWHILE, LATER...

The governor of the province of Cowsansows, Larry Acidopholus, heard about this amazing blind horse of Umbers and used him as an example in a discussion with the senators of Treefoil. He was making the point that the people (and animals!) of Cowsansows were doing more than their share in the battle of debt with the evil world bank. One senator, Jerry Bribee (originally of the province of Stonesanbones) wanted to know more about this wonder horse and invited Cooper (and John) to come to Petropolis, the captial of Treefoil.

Now it just so happened that the very day that Cooper (and of course John) were in Petropolis was the same day that the two directors of the evil world bank were in town to apply more pressure. These two, David Rocketfellow and Hiram Briber, along with senator Jerry Bribee were touring the elaborate stall where Cooper, the wonder horse, was on display. No one was around at that moment except the three men, Cooper and of course old John rooster. The horse and the rooster watched as Hiram Briber gave a fistful of money to Jerry Bribee as Rocketfellow said,

"Now make sure you get the cleverest lawyers to word that loan extension just right. We need to have your silly fellow senators ratify this next week or our gold mine will dry up. Who would have thought it could have been this easy. Why, Jerry, your whole country is as dumb as this blind horse and as stupid and silly as that old rooster..."

Cooper and John were shocked and angered by what they heard. The horse looked back at the rooster and then John pecked out a complicated message. In a matter of seconds Cooper jumped out of the stall and with his teeth grabbed Jerry Bribee by his coat collar while kicking Rocketfellow into orbit. He then knocked down Hiram Briber and put one enormous foot on his chest. As the big blind horse shook Bribee by the collar and held Briber down with his foot, old John rooster went running and sqwaucking across the road and into the Senate Dining room where the entire government was eating lunch. John ran down the middle of each table upsetting dishes and glasses, flapping his wings and sqwaucking loudly. The angered senators chased the rooster outside and across the road and into the stable where they found Cooper, Jerry and Hiram.

Everyone stopped in shock except Cooper who continued to shake the senator. Money started falling from his pockets and in time he confessed to how he was bribed to trick the other senators into the contract with the evil world bank. Cooper finally let both of them go.

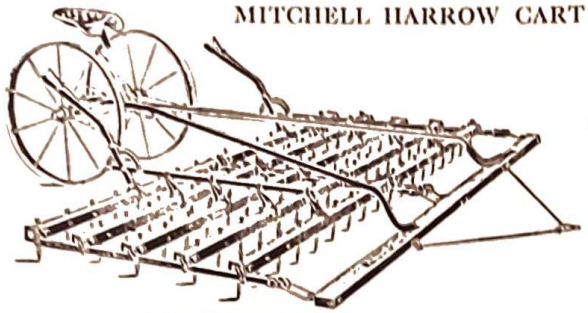
Jerry Bribee was impeached and sent back to Stonesanbones. Hiram Briber was sent back to world bank headquarters with a formal document finding the agreement null and void because of chicanery. The day was saved!

MEANWHILE, LATER THAT WEEK and BACK ON THE FARM

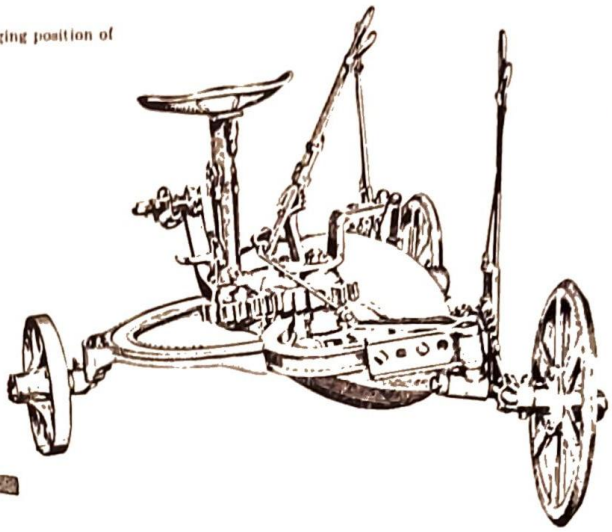
Cooper and John had saved Treefoil and Cowsansows from the evil bankers and they were national heros. But they didn't care for that. All that mattered to them was being useful with their friends on the Umber farm, those well cared for 90 acres of good land in the sleepy little valley of Sweetdale in a far corner of the province of Cowsansows in the mythical land called Treefoil. Goodnite.

Unusual Horse-drawn Equipment: Ideas worth saving

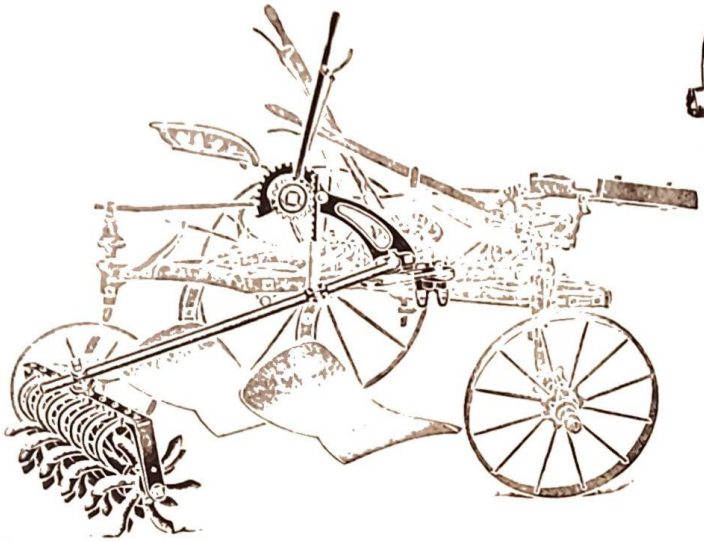
MITCHELL HARROW CART



Attaches to any harrow.
Works up close.
Turns without changing position of seat.



KRAMER ROTARY HARROW ATTACHMENT



The Kramer Attachment can be attached to any make of riding plow.

The use of the Kramer creates a dust mulch on top of the soil several inches thick, thus breaking the capillary connections with the firmer soil below, stopping evaporation and retaining the natural moisture of the ground until planting time. You can prepare a better seed bed with one of these attachments and, as a natural result, raise better crops.

The Kramer attachment is powerfully constructed and simple of control.

A roller-bearing back gear makes the attachment easy to handle.

It turns corners and goes over obstructions without danger of breakage.

Blades are hand riveted and will never wear loose.

The construction of the disc and blade reduce the draft to a minimum.

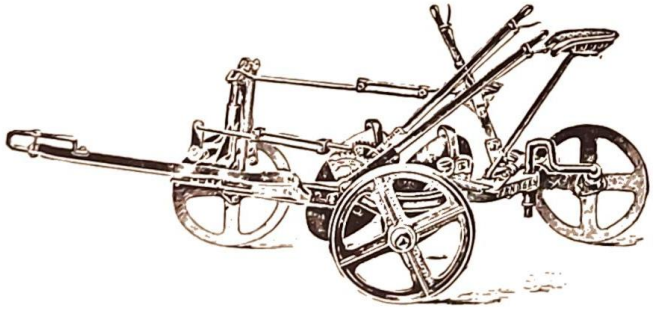
The points of the blades penetrate and cleave the hard ground first, and gradually the entire cutting surface is utilized, chopping the ground to pieces.

BENICIA REVERSIBLE DISC PLOW

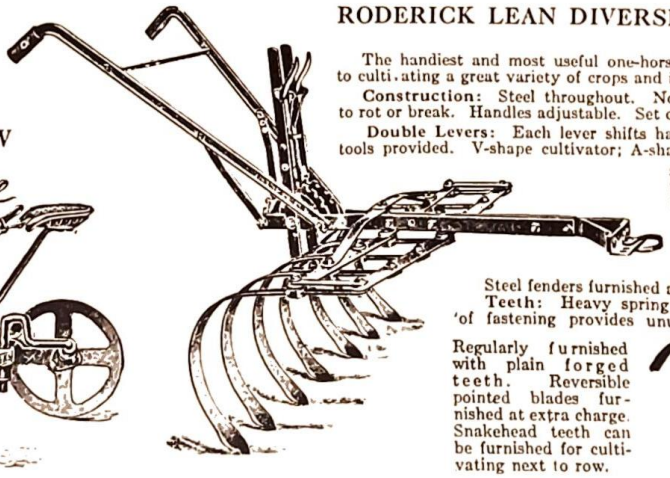
Plows "A-Comin' and A-Goin' "

On these two pages I've assembled some engravings of old horse-drawn farm tools which were either a little obscure or have become so. Yet each of these designs contain some element(s) of function which deserves to be preserved somehow. If, as someone once accused this magazine is a paper protector of relic technologies then let these pages serve as a SAVE FOR FUTURE REFERENCE file I, for one am anxious to try to build one of tongue scrapers pictured on the next page. And if the parts could be had, the rotary harrow attachment on the left would be interesting to try out. I've already had good experience with the type harrow cart represented above and can comfortably recommend them to you if you can find one or build it The reversible Disc plow above will take some studying. It looks like it would take a railroad engineer like Alan Conder to figure it out. If you have anything to add to our SAVE file send it along. LRM

SANDERS DOUBLE DISC PLOW



RODERICK LEAN DIVERSE CULTIVATOR



The handiest and most useful one-horse tool built. Adaptable to culti.ating a great variety of crops and in numerous ways.

Construction: Steel throughout. No wood handles or beam to rot or break. Handles adjustable. Set over hitch.

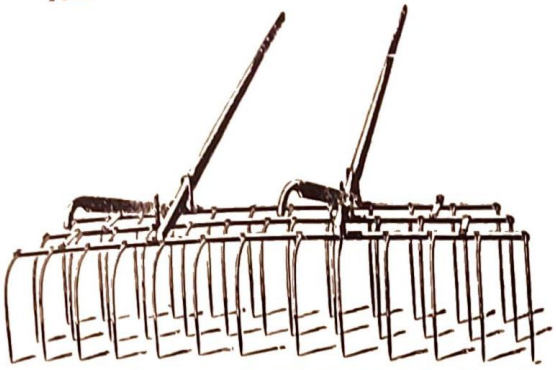
Double Levers: Each lever shifts half of teeth. Six distinct tools provided. V-shape cultivator; A-shape (see cut) side harrow seven teeth; side harrow five teeth; straight harrow seven teeth; straight harrow five teeth. By removing center tooth makes splendid tool for straddling row crops.

Steel fenders furnished at extra charge.

Teeth: Heavy spring steel. A special manner 'of fastening provides unusual strength and wear.

Regularly furnished with plain forged teeth. Reversible pointed blades furnished at extra charge. Snakehead teeth can be furnished for cultivating next to row.

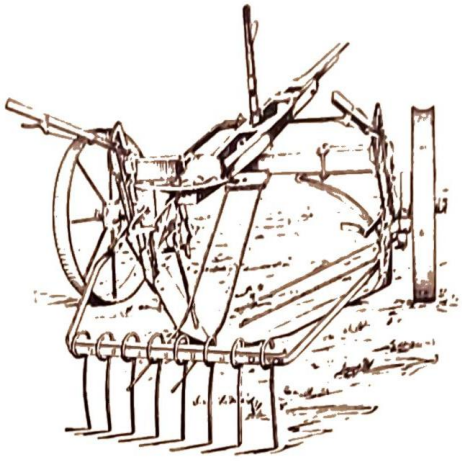
THE MITCHELL IMPROVED WEEDER



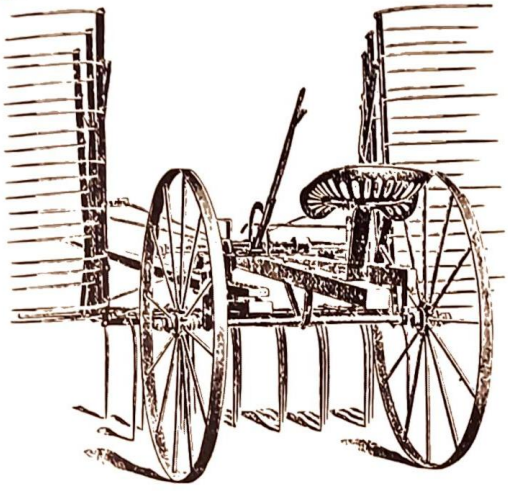
The Mitchell Improved Weeder is made with square spring steel teeth, with round points. This style is much stronger and at the same time more flexible than any other shape.

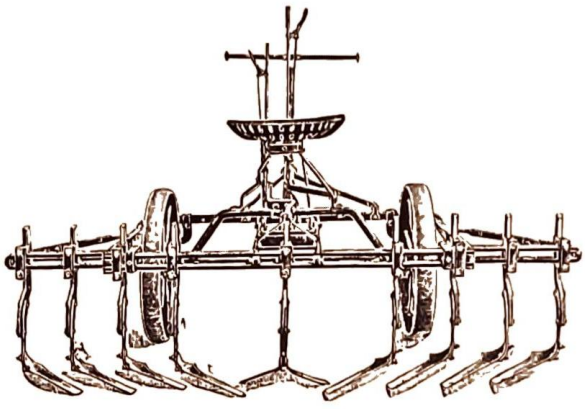
The frame is made of angle steel of high carbon, combining great strength and flexibility. The handles and shafts are adjustable.

NEW CALEDONIAN STEEL FRAME BEAN HARVESTER



THE MITCHELL IMPROVED MOUNTED WEEDER





THE PLANET JR. ORCHARD AND UNIVERSAL CULTIVATOR

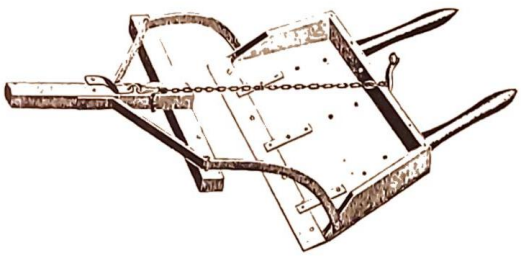
Equipped with Cyclone Weeder Attachment

TONGUE SCRAPER, LEVELER AND DITCHER

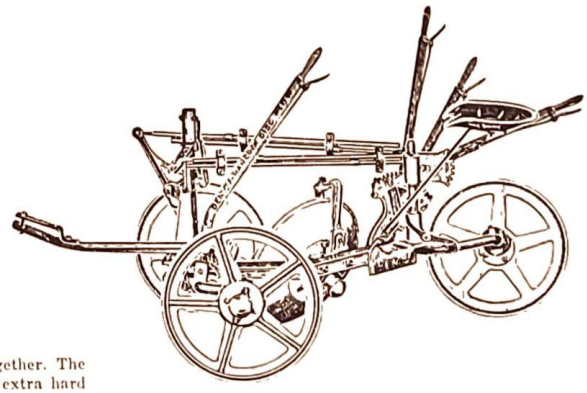
FOR LEVELING ROADS OR IRRIGATION FIELDS, CUTTING, CLEANING OR FILLING DITCHES

The Driver Fills and Dumps the Scraper with Ease

No Extra Man Required

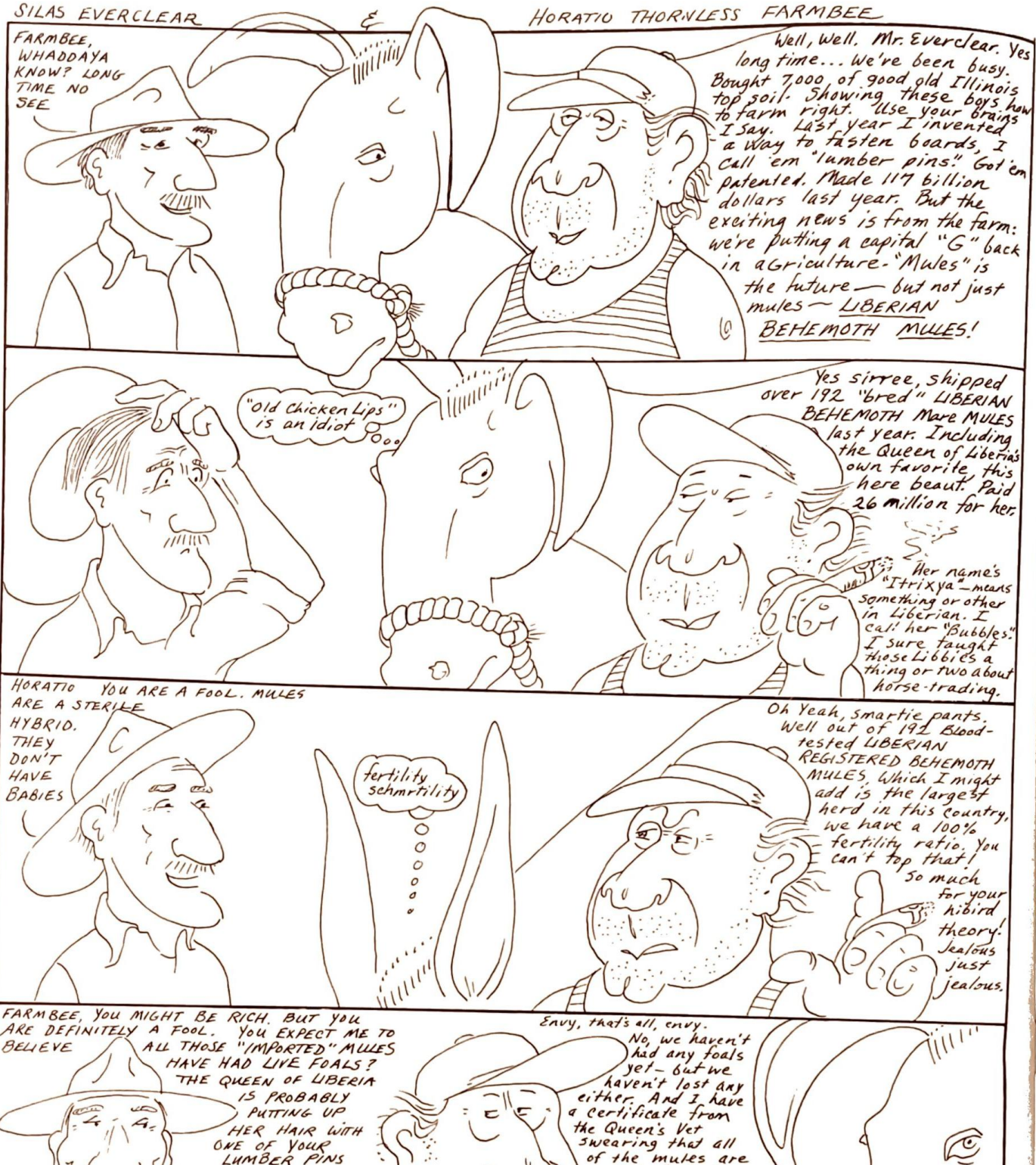


BENICIA SINGLE DISC PLOW



The scraper box and handles are made of well seasoned hardwood, thoroughly bolted together. The lines and draw bars are of wrought steel, strong and durable. The blade is of heavy steel, extra hard and ground to a sharp cutting edge.

Hook the chain up shorter until scraper penetrates the ground satisfactorily.


SILAS EVERCLEAR & HORATIO THORNLESS FARMBEE
FARMBEE, WHADDAYA KNOW? LONG TIME NO SEE
Well, Well. Mr. Everclear. Yes long time... We're been busy. Bought 7,000 of good old Illinois top soil. Showing these boys how to farm right. Use your brains I say. Last year I invented a way to fasten boards, I call 'em "lumber pins." Got 'em patented. Made 117 billion dollars last year. But the exciting news is from the farm: we're putting a capital "G" back in agriculture. "Mules" is the future — but not just mules — LIBERIAN BEHEMOTH MULES!
"Old Chicken Lips" is an idiot
Yes sirree, shipped over 192 "bred" LIBERIAN BEHEMOTH Mare MULES last year. Including the Queen of Liberia's own favorite, this here beaut. Paid 26 million for her.
Her name's "Itrixya" — means something or other in Liberian. I call her "Bubbles." I sure taught those Libbies a thing or two about horse-trading.
HORATIO YOU ARE A FOOL. MULES ARE A STERILE HYBRID. THEY DON'T HAVE BABIES
fertility schmrtility
Oh Yeah, Smartie pants. Well out of 192 Blood-tested LIBERIAN REGISTERED BEHEMOTH MULES, Which I might add is the largest herd in this country, we have a 100% fertility ratio. You can't top that! So much for your hibird theory! Jealous just jealous.
FARMBEE, YOU MIGHT BE RICH. BUT YOU ARE DEFINITELY A FOOL. YOU EXPECT ME TO BELIEVE ALL THOSE "IMPORTED" MULES HAVE HAD LIVE FOALS? THE QUEEN OF LIBERIA IS PROBABLY PUTTING UP HER HAIR WITH ONE OF YOUR LUMBER PINS AND GIGGLING RIGHT NOW.
Envy, that's all, envy. No, we haven't had any foals yet — but we haven't lost any either. And I have a certificate from the Queen's Vet swearing that all of the mules are safe in foal. Anyway if you knew anything you'd know mules have a 6 year gestation. That's why most people think they are sterile. They just give up too soon. The Queen told me that herself

RUDOLPH THE RED NOSED STEER

by Heather Smith Thomas

Rudolph spent the first three weeks of this life as a "house calf." He was a premature baby that was very lucky to be alive at all. Actually, his story began high up in the mountains where our cattle were spending the Fall on native pasture. We keep them there until that feed snows under, then bring them down to the fields. After they've eaten most of the field pasture, we sort out the earliest-calving cows to bring on down to the "maternity ward" near our house and barn.

On December 15 we went up to the mountain pasture to bring the cows down. My husband Lynn drove the jeep up on the mountain to call the cows, and a friend and I rode to the far corners to round up the stragglers. In the far corner on my side of the mountain was a small group of cows, and as I approached them I saw a large coyote sitting on a rocky point watching something. Riding closer, I could see the object of his intentions — a tiny baby calf. The mother wasn't very far away. She was a Hereford-Angus crossbred cow named Zero, and she wasn't due to calve until January 17. She had calved 5 weeks early.

The calf weighed only about 20 pounds — roughly one-fourth of what he would have weighed full-term, and his hair was very short. He was licked off and dry. He'd probably been born early that morning, and the temperature had been down to 5 degrees. This baby was lucky to be alive — so premature and fragile, coming into the world at that cold temperature.

I thought about carrying the calf down the mountain on my horse, but I was riding a skittish young gelding who might take a dim view of such things. So instead, I chased the coyote away and galloped down the canyon and over the mountain to find Lynn and the jeep. He decided to drive the jeep as far up the canyon as he could, then hiked the last half mile and carried the calf back down to the jeep while I herded the cows. The baby calf rode on the jeep seat with Lynn the rest of the way home.

We brought Zero on down to the maternity ward and reunited her with her miniature baby. But we could soon see that this baby wasn't going to manage very well; he needed more care than his mother could give him. He was just too small, too frail, and wasn't able to nurse very well. It was difficult for him to reach the udder; he could walk right under the cow's belly like a small dog. It also looked like he was developing pneumonia.

Evening temperatures were dropping, and this calf needed a warmer place than in the barn. A quick decision was made and we brought the calf in the house and put the cow back out in the field. There was no point in trying to keep him with her, or even to keep her milking, because this calf would probably need intensive care for an indefinite period of time. We would raise him ourselves on a bottle, if he survived.

So little Rudolph (so named by the kids because of his red frostbitten nose) went into an "incubator" in the kitchen — the kids' old crib. He was so small there was no danger of him jumping out. We thawed some frozen colostrum to feed him. He may have gotten a little from his mother but we weren't sure if he'd had enough. We always save some colostrum (first milk) when our milk cow freshens, and keep it in the freezer for emergencies; sometimes it's a lot easier to thaw some colostrum than to try to milk out a wild cow.

We fed Rudolph colostrum several times during the night and next day until he finally had a bowel movement (colostrum acts as a laxative as well as containing vitamins and important antibodies to protect the calf from disease), then we switched him to regular milk.

As soon as we brought him in the house we also started him on antibiotics and expectorants to combat his pneumonia and help him breathe easier. His temperature was quite high and his respiration was becoming fast and labored. Those next few days were a battle for his life, with round-the-clock doctoring, bottle feeding, and "diaper changing." We bedded his crib with old towels, and had to change and wash them regularly. For the first week, little Rudolph wasn't interested in anything except trying to say alive. It was an effort for him to drink his bottle, and he spent all his time fighting to breathe. We did everything we could to help him — we even put Vicks Vaporub on his chest.

By Christmas he was winning the battle and his temperature came down to normal. He felt much better, and even tried to hop and jump around in his crib, but it was too small an space for any real exercise. So we started letting him out of the crib a few minutes each day so he could get a little exercise. The livingroom rug was an ideal place for him to play; it gave him better traction than the slick kitchen floor. Rudolph's play time usually took place in the evening when the whole family was on hand to supervise. Also at that time he'd already have made his "mess" for the day and wasn't likely to have an accident out on the rug.

Lynn would lift him out of the crib and carry him to the living room, Rudolph's little legs churning eagerly in great anticipation. Once on the floor, Rudolph would run and buck, snorting and charging around the room. It took all four of us to guard the things we didn't want him to crash into; we had to keep him away from the phonograph, the Christmas tree. and the hot stove. And someone had to head him off if he made a dash for the dining foom. If he zoomed out onto the slick dining room floor he was like a hog on ice, sliding along out of control or doing the splits.

But on the living room carpet he could get up lots of speed (he ran clear up onto the couch a few times) and loved to do some fancy bucking. He attacked anyone who would play with him, butting heads and acting like he was very tough. He was a very ferocious little 20 pound bull! He put on such a show of fighting spirit that he'd have us rolling on the floor with laughter. The Christmas tree fascinated him, and if given a chance (if it was left unguarded for a moment) he would try to eat the branches or knock off the ornaments.

We had several visitors between Christmas and New Years' Day, and Rudolph was the star attraction at our house. We had to limit his performances so he wouldn't overdo and become too tired. He loved to spar with the children and several of our young guests were quite envious of our kids and their pet house calf.

But after three weeks in the house he began to outgrow the crib. He still wasn't "newborn" size yet, and his hair was still too short, but he was getting too lively and trying to climb out of the crib. On January 6 we fixed a warm corner for him in the barn and he made the transition from house calf to barn calf in spite of protests from our children. They took over the chore of feeding him his bottles out in the barn.

He grew large and strong and it wasn't long before we stopped playing games with him. Playfully knocking heads with a 20 pound sassy calf was one thing, but when he got to be 500 pounds, that was an entirely different story. We didn't want him to get mean and take advantage of us puny people.

The kids pampered him a lot, and though he started out the smallest, he was one of our largest calves that Fall. We often wondered if he ever remembered his early weeks as a house calf playing king of the livingroom. Perhaps. But no way would he ever fit into that crib again.

BITTER ROOT FIELD DAY

Photos and Text by Jim Lotan

The Bitter Root Draft and Driving Club, a group of about 35 families in western Montana's Bitter Root Valley, held a Field Day in April of this year. Participants in the Field Day were to plow, disc, harrow, and drill a 30 acre field on the Steve Anderson Farm a few miles north of Stevensville, Montana. The Bitter Root Club is active in all seasons of the year.

Below Left: A team of Thoroughbred/Percheron fillies, Dolly and Baib owned by Dan Leonardi of Hamilton, Montana. Dan and his father use horses to work their farm near Hamilton. They often use 5-up and 6-up on the sulky plow. Dolly and Baib weigh 1350 lbs. each and do more than their share in the multiple hitches for the Leonardis.

Below Right: Kathy McFadgen demonstrates braiding manes at a recent draft horse clinic. Instructors at the clinic included Kathy, Rex Griffin, Bob Leonardi, Kent Connor and Vernon Woolsey. Kathy made Jim demonstrate her techniques shortly after the photo was taken just to see if he was thinking about horses or photography. Kathy and her husband Mark raise Belgians at their ranch on the Sunset Bench

Below: Vernon Woolsey, dean of the Bitter Root Drafters, demonstrates plowing with his well trained Quarter/ Percheron team, Gus and Gert. Waldo was hitched in the middle to further his education which began in January.

Above: Billy Hobbitt, of Florence Montana, is talking to his mules. Billy is a formidable competitor amongst Bitter Root Drafters. Horse people are forever trying to avoid performance class competition against Billy and his mules.

Below: "Garsh-darnit! If you can lose it buckled, I can put it back on buckled!"
Warren Veien reinstalls a loose collar on his new Shire filly, Lady, after she wandered off while Warren was harnessing his other two Shires for plowing. Warren has three nice Shire mares who know how to work, see plenty of it and are always raring to go.

Upper right: This is Dolly owned by Bud Johnson of Ambrose Creek. Bud has her teamed up with a dapple grey Percheron gelding just to show that he is not prejudiced.

Lower right: Jim Lotan's Clydesdale filly, Lily, is taking a noon-break after a 10 mile drive with the 'Biffy' wagon. Jim drove the Clyde teamed up with an older quarter horse mare. Jim broke Lily last Fall and used her all Winter noting that she is a willing worker with lots of style.

GELDING COLTS

By Heather Smith Thomas

The gelding of horses has been practiced by horsemen for more than 2000 years, but it did not become a common practice until the Middle Ages. Some of the first people to geld their horses were the warrior horsemen who moved out onto the plains of what is now Hungary, in about 100 B.C. The Romans also used geldings.

For practical purposes, unless a horse is going to be used for breeding, he should be gelded. For general use and performance, a gelding is usually better than a stallion, for he is often more predictable and a more consistant worker, with his mind on his work instead of on mares.

The age at which a colt should be gelded has been somewhat controversial among horsemen. There is a widely held belief that colts should be left entire until yearlings or two year olds — in order to "devleop" more fully before being gelded. There are many old-timers who wouldn't dream of gelding a foal. They want him to grow up and gain some masculine traits first.

Yet these are the very traits a horseman wants to eliminate in the gelded animal. The stallion, with his thick, heavy, crested neck, is not as well balanced nor as easily flexed as the mare or gelding with a more slender neck and lighter front end. And the attitude and behavior of the horse gelded young will be much more tractable and docile than that of an animal gelded later after he has already developed some stallion habits and attitudes.

There are several advantages to castrating a colt when he is a foal. The surgery is usually much easier on the youngster than on the adolescent or older horse; the young foal hardly knows he's had surgery. It is a relatively minor operation at that age and size.

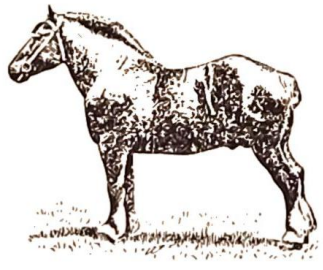
Another advantage to doing the colt very young is that the testicles are usually down at birth, or soon after. Then they go back up into the abdominal cavity and may not descend again until the horse is a yearling or older. You can either do him very young, or wait. In the earlier days when everyone used draft horses, most draft horse colts were routinely gelded in the first weeks of life, because it was easier and much more logical than waiting and wrestling with a 1600 pound adolescent stallion. That same logic should be used today.

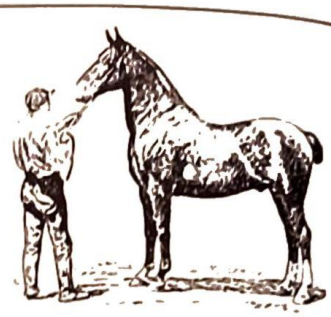
Early castration does not affect the horse's performance in any way. In fact, there is good evidence that early castration makes a better athlete. Durability and performance capabilities are often superior in the gelding. Perhaps some of the energy that would have gone into sexual drive is re-directed into working potential. And geldings tend to grow taller and gain a bit more size than stallions, developing a little more leg and height. This is because at puberty the young horse's sex hormones seem to signal the growth plates in the leg bones to close. But this doesn't happen in the horse that is gelded young, and thus he has a little longer time to grow before those growth plates close and solidify, and he is able to grow a little taller.

Healthwise, the surgery of castration is easier on the very young animal — from about 10 days to several weeks of age is about the best time (using a technique to prevent any possibility of hernia). There is much less distress and trauma to the colt at that age, he is easier to handle than the yearling or two-year-old, and he recovers much more quickly from the surgery. There is less post-surgical complication in the foal. The mare helps exercise him; he'll be moving around with her and you won't have to spend days doing enforced exercise and leading, as you do with the older animal after the surgery, to minimize swelling. The mare also provides moral support. Thus the gelded foal has less trauma, both physically and emotionally.

And he'll also develop into a more cooperative and more evenly proportioned animal, never experiencing the tempermental cantankerousness of the young stallion, nor the physical drawback of a heavy front end. All the problems and turmoil of keeping a colt — and having to keep him separate from the fillies and mares — are eliminated. Colts that are gelded at an early age can be turned out with other geldings or fillies, and are much easier to take care of; there are fewer management problems. And young geldings are less apt to hurt each other or other horses by rough play. Young stallions, by contrast, are a lot like smart-aleck teenagers; they have to try everything out and prove to the world that they are tough guys.

Starting the young horse's training is also a lot easier if he is already a gelding. And its also safer for both you and the horse. If he has been a gelding from the time he was a foal, you can start his training at a young age and it will go a lot more smoothly than if he were a young stallion. And the training won't have to be interrupted for having him gelded, with the recuperation period involved. Another factor to bear in mind is that it takes awhile for the male hormone to be eliminated from his system if he is gelded after he has already reached puberty. Following surgery at age two, it may take six to eight weeks or even longer before those hormones are completely gone from his body, and during that transitional period he might prove to be a trying pupil. Things just go a lot more smoothly for some horses if they never have a chance to be a stallion.





The only drawbacks to gelding a colt as a young foal are a slightly greater change of scrotal hernia when the operation is performed, and a slightly greater chance of urinary calculi (bladder stones) when the horse is older. But both of these problems are very rare. A scrota hernia can be easily corrected at the time of castration with just a stitch or two, but the veterinarian or person doing the castration should *always* check for this condition — especially in the young foal. Otherwise you risk having the foal's intestines come out the opening after the surgery.

I lost my first gelding this way — just because the veterinarian did not check for a hernia (abnormally large opening) when he did the castration. The colt's intestines came out the incision after the veterinarian had left. We didn't have a phone at the ranch at that time, and my mom rushed off in the car to try to catch the vet, while Dad and I held the colt down and kept him quiet and kept a clean towel over the intestines — trying to keep any more from coming out the opening. The vet returned, tranquilized the colt and replaced the intestines, but the trauma of having the gut handled put him into shock and we lost him. After that experience we always check for a hernia whenever any horse is gelded on our place. It is not a common problem, but every horse owner should be aware of this possibility; this is truly a case where "a stitch in time saves nine" — and maybe the horse as well. It's a very simple matter to check for a possible hernia and take a stitch if one exists. A person doing a castration should never neglect to check.

The other condition (urinary calculi) occurs sometimes because the urethra of the early-gelded colt may not develop to full size as it would in the adult stallion. The urethra is the tubular canal through which urine (and sperm, if the horse is a stallion) is passed. If the urethra is small, the gelding may have a slightly greater risk of developing blockage from calculi when he is older, but this is a rather rare condition. It occurs once in a great while in geldings and in stallions, but never in the mare, because she has a shorter and larger urinary passage that does not lend itself to obstruction.

In most cases, the advantages of gelding a colt early far outweigh any potential disadvantages or risks, especially in terms of the horse's physical attributes and mental attitude and behavior. In conclusion, unless a horse is going to be used for breeding purposes, there is no real point in keeping him as a stallion. And if you are going to geld him, there is no real point in waiting. Most of the advantages lie in gelding him young.

All Weather Poultry Housing

Undoubtedly the one thing which makes poultry profitable is the ability of the flock owner to produce eggs during those months in the fall and winter when egg prices are often high. Off season egg production cannot be obtained unless the flock is housed in a building which provides something like spring and early summer conditions when the thermometer outside tell us its winter.

This may be none too soon to begin plans for a good poultry house for the pullets which will begin to lay eggs next fall. There are a number of good types of poultry houses, one which is shown in the accompanying diagrams. This is what is known as a two-gable house with a concrete floor and frame construction.

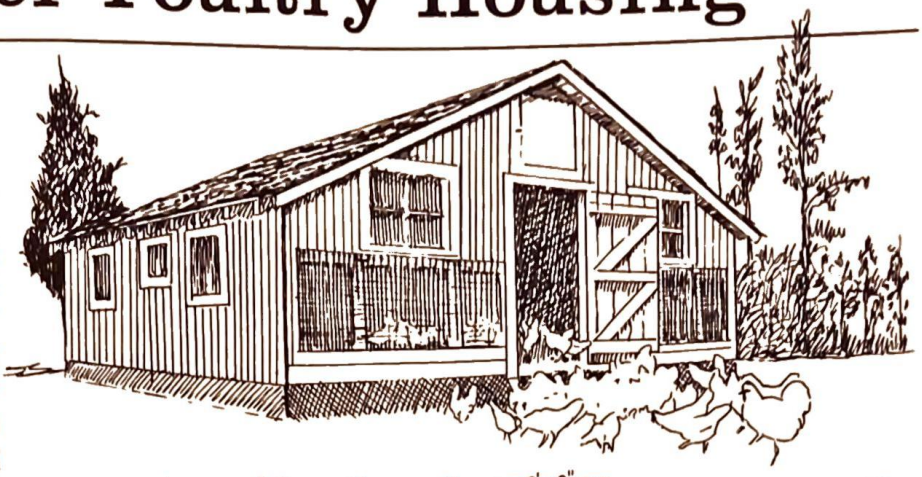
This design is 24 feet by 24 feet which provides about 300 square feet of floor space, ample room for about 100 white leghorns or 80 to 90 of the heavier breeds.

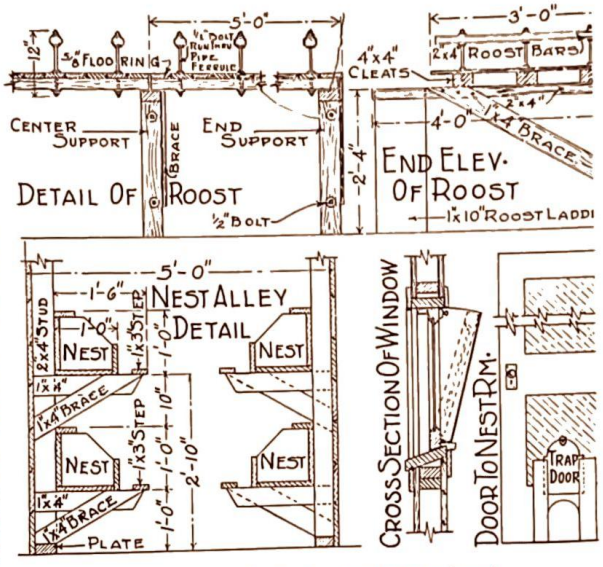
This house is built for maximum climate control efficiency with the greatest economy. For example, the eaves are 6 foot 6 inches high which allows just the right space for the placement of nests under the windows if that be the farmer's wish. But in this way space is conserved, heat is conserved and building expense is conserved.

If you are serious about having a poultry house which works to give you better egg production during both mid-summer and mid-winter climate you must be concerned with TIGHT construction and that includes insulation. Now many of you may complain that what is being proposed is far too expensive. Wait just a minute. On the basis of 7 cents per egg a tightly built well insulated laying house can bring you as much as $630.00 per year in additional income! That is figured on the basis of 50 eggs per day for 180 days. If you have a flock of 100 layers and find that during bad weather only half of them are laying eggs you could be losing $3.50 a day or more! Would then difference bay for a well-built poultry house? We think so.

When we speak of insulation we're talking of a double wall construction (exterior wall/interior wall) built tight to trap an insulating air space between. This will keep out drafts, hold in heat, and hold out heat depending on the season. There are a number of inexpensive building boards (including particle board and sheet rock) which can sometimes be purchased at great discount because of blemishes. This coupled with a good tight fitting outside wall will result in a poultry house that, with adequate lighting, controlled ventilation, and intelligent sanitation WILL result in MORE eggs from the same hens. Enough to pay for the difference in building materials in less than one year!

This is not a difficult house to build as the plans demonstrate. Also presented are details of the nests, cross-sectional view of the window which is hinged so that it may be used as a ventilator and details of the roosts. Whether you employ this design or go with another; hold this thought, you are in this business to stay, to prosper and to enjoy. Good facilities are one of your most important investments towards those goals.





Sections and details of poultry house equipment

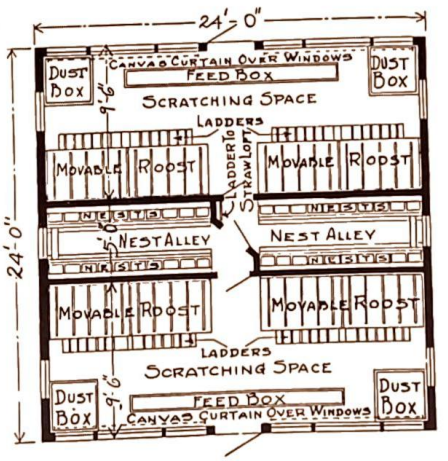
REMOVE THE BROODIES

Broody hens in a laying flock are a nuisance and should be removed as soon as they are noticed. The sooner they are removed from the flock, the quicker they can be broken of their broodiness and returned to laying.

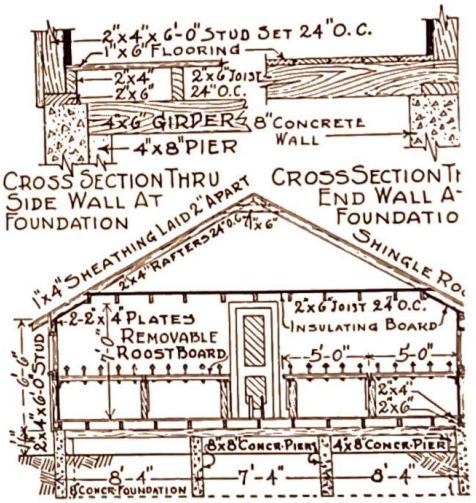
The easiest way to break up broodiness is to put such birds in a special broody coop that has a slatted bottom. Feed and water them as usual. If placed in such coops as soon as noticed, broodies may be broken in about a week.

Broody coops may be made of 2 inch material placed 2 inches apart and the sides may be slatted in the same way. Such a coop may be made 1½ ft. or 2 ft. square and placed in a corner on the roosts or a battery of them may be built outside and the tops covered to protect from the rain.

It is a good plan to band all broodies so that when they finally stop laying they may be marketed and not run the chance of being selected for next year's breeding pen.



FLOOR PLAN OF POULTRY HOUSE



CROSS SECTION

Also:

BEFORE CULLING

Since the kind of feed layers get has a lot to do with the amount of yellow pigment they show in various sections of the body, it is important to take this into consideration before starting to cull. In order to apply the pigment test accurately, in which the presence of yellow indicates that a bird is not laying, the flock must have been receiving a laying ration for at least a month just previous to culling: this means a balanced laying mash before them all the time supplemented with a grain ration at least once a day.

OLD JOHN DEERE TRACTORS Part 2

This information appeared originally in a book entitled THE OPERATION CARE AND REPAIR OF FARM MACHINERY (25th edition) published by John Deere Company circa 1935. We have reprinted it in two parts with the first part having appeared in the Summer 1985 SFJ. PLEASE NOTE: Publication of this information is done as a service in response to several requests. It does not constitute a recommendation of a make of tractor or a statement as regards tractors versus horses. Small Farmer's Journal recommends careful consideration of the appropriate scale and type of technology for each individual farm and farmer. For some farmers older, well-maintained tractors may be just the ticket. We wish you would give careful consideration to TRUE horsepower in the form of horses and mules in harness because we know, that if it works for you, money and spirit will be saved. We hope you will think about our opinion that there is a place on EVERY farm for a team of good work horses.

How we do the work we choose to do will make a difference in how long we choose to do it or how long we are allowed to do it. LRM.

Transmission System. The transmission system, as its name implies, transmits or delivers the power from the engine to the drive wheels where it is used to pull loads; to the power take-off where it is available to operate equipment requiring power in addition to that necessary for forward travel; and to the power lift, where it is used in raising and lowering integral equipment and, with remote cylinder, for raising, lowering, and adjusting drawn equipment. Power is transmitted to the belt pulley direct.

Power is transmitted from the engine to the drawbar through the clutch and transmission gears and through the final drive or differential to the axles. Sliding pinions of varying sizes in the transmission are shifted to mesh with corresponding gears to provide for various tractor speeds forward and one speed in reverse as mentioned.

A differential is a special arrangement of gears which permits each drive wheel to turn independently as the tractor turns a corner. It permits one drive wheel to rotate slower or faster than the other when turning or when working in rough conditions.

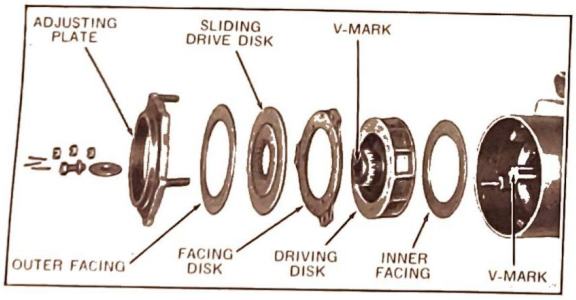


Figure 45—Clutch "exploded" to show principal parts.

The sole purpose of the clutch (Fig. 45) is to link or connect the power of the engine to the load. Without such a link, no provision could be made for transmission of power to the various power outlets or for changing speeds or direction of travel. To function properly, the clutch should engage smoothly, picking up the load gradually rather than with a jerk.

The clutch on the tractor used for this text, is properly adjusted when the nuts are drawn up exactly to the same tension, and the clutch operates with a snap, requiring some pressure to lock it. If it is necessary to tighten the clutch, each nut must be turned down to the same tension, disregarding the number of exposed threads (see Fig. 46).

To replace clutch facings, remove dust cover and clutch adjusting plate (see Fig. 45).

When installing new clutch facings, make certain that the inside or first clutch facing is in proper position while clutch drive disk is being replaced. Install second clutch facing in clutch adjusting plate, making sure to have the

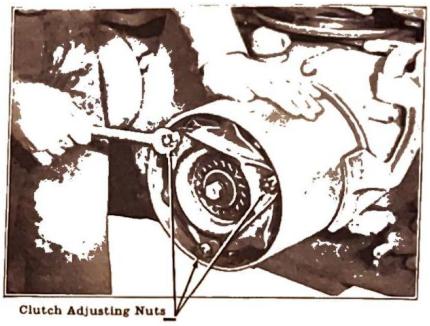


Figure 46—The clutch is adjusted properly when all nuts are drawn up to even tension.

three short springs in place. Adjust clutch as described. Always refer to the operator's manual for proper directions in servicing the clutch on your particular tractor.

Lubrication of Transmission. The transmission and differential units require little attention other than efficient lubrication which is highly important.

In the enclosed transmission and differential, gears, shafts and bearings operate in a bath of heavy oil. For proper lubrication of these parts, the correct oil level should be maintained. Periodic check, following the manufacturer's instructions, will determine when oil should be added. Seasonal change in weight of oil used in transmission and differential, in line with the manufacturer's instructions, is necessary for efficient operation and long life.

The heavy gears in transmission and differential depend upon a cushion of oil to relieve the tremendous shock of starting and the constant pressure of working under load. Too thin or light an oil will be "squeezed" out by the teeth; too heavy an oil will not be carried around by the gears. A simple test to prove this point is to run a cold gear over a heavy grease—note that the gear simply makes a print or track in the grease without picking it up.

In addition to the engine, transmission, and differential units, there are several oil fittings that require regular attention with a high-pressure grease gun. A thoroughly lubricated tractor will last longer and give better service than one that is given only ordinary care.

Power Shaft or Take-Off. A power shaft or take-off is a third means of taking power from the tractor engine to drive such machinery as the combine, baler, and corn picker. It drives the entire mechanism of this type of machine, the wheels acting merely as supporting or carrying members.

The power take-off consists mainly of a shaft, extending back from the tractor, which is driven by the regular trans-

mission. Its operation is controlled by a shift lever usually placed for convenience of the tractor operator.

Hitch and power take-off locations on all general-purpose tractors are now standardized so that tractor-drawn equipment, powered through the take-off, is readily interchangeable, thereby saving the operator considerable time and labor in shifting from one machine to another. It is wise, therefore, when buying new equipment for use with older tractors which do not have standardized hitch and power take-off, to convert the tractor to standard rather than to buy the new equipment with parts to adapt it to the old tractor. In this way, your power equipment will be adapted to your present tractor and to the new tractor you may acquire later. Your implement dealer will offer further information at the time you purchase equipment.

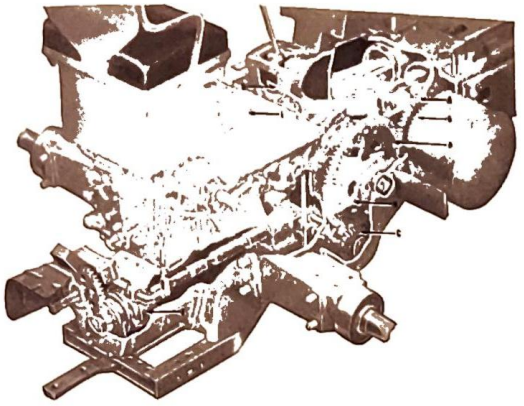


Figure 47—This tractor has been cut away to show the power take-off power train. Sliding gears and drive shafts operate in oil. (A) power shaft idler drive gear; (B) power shaft idler gear; (C) sliding gear and shaft; (D) shifting lever for sliding gear and shaft; (E) power shaft clutch lever; (F) power shaft clutch; (G) belt pulley gear and (H) first reduction gear.

"Live" Power Shaft. The general-purpose tractor described on previous pages is equipped with a "live" power shaft. (See Fig. 47.) It provides continuous running power for operating power take-off machines as long as the tractor engine is running. Its power is completely independent of the transmission clutch. The operator can stop the forward travel of the tractor at any time and start it up again while the power-driven machine continues to operate at full speed without interruption. This is especially advantageous in harvesting heavy crops with a minimum of loss.

On the tractor shown in Fig. 47, power is delivered directly from a drive gear on the crankshaft to an idler gear. Both gears operate whenever the engine is running. A sliding gear and shaft transmit power through the power train to a spring-loaded, over-center, wet-disk type clutch. Engaging the clutch delivers power to the splined PTO shaft which drives the equipment.

This clutch enables the operator to bring the power-driven implement up to full speed before starting the forward movement of the tractor. It completely protects the PTO shaft and cushions shock on the implement. Even when with the engine at wide open throttle, the clutch can be engaged instantly without damage. The power shaft clutch has an independent oil reservoir and lubrication system; it operates in a constant bath of oil supplied by a separate pump.

Operator's manual should be consulted for proper servicing.

Differential Brakes. The foot-operated or rear wheel differential brakes, one for each drive wheel, are provided to facilitate short turning either right or left when working in row crops, to stop the tractor, and to hold the tractor stationary on belt work.

In operation several cautions should be used in applying differential brakes: when traveling at high speed as on highways or in going to and from fields, brakes should be applied gradually and uniformly to both wheels to prevent skidding of the tractor and, in extreme cases, upsetting. Never brake one wheel when turning at high speed. Observe, always, that brakes are provided solely for the purposes outlined above.

Differential brakes require only occasional adjustment which should be made in accordance with instructions given in manufacturer's service manual or instruction book.

Figure 48—Front wheel bearings should be checked for proper adjustment.

Whenever a brake adjustment will not correct or improve defective brake action, the brakes should be relined.

Lubrication of Front Wheel Bearings. Lubrication and adjustment of front wheel bearings should be given special attention. While the front wheels on most tractors are lubricated by means of a high-pressure fitting, it is advisable to remove the wheels for occasional servicing.

To service front wheel, remove the wheel, take out all old grease, examine the bearings (Figs. 48 and 49), clean the two felt washers in gasoline, resoaking in transmission oil before replacing. If these washers are worn thin, replace with new ones. Pack hub and bearing with wheel bearing grease, replace wheel on spindle, and adjust as follows: relieve bearings of all weight by running one wheel up on a block or plank to raise the other. Turn adjusting nut tight; then, back off the adjusting nut 1/3 to 1/2 turn. Adjust opposite wheel in same manner. Wheels should rotate freely but without end-play. Lock adjusting nut at proper point.

Front wheels of many general-purpose tractors may be reversed as shown in Fig. 50, to provide easier steering control, especially in listed crop territories where it is necessary to keep the front wheels on the ridges. This extra clearance is an advantage in exceptionally muddy conditions, since mud will not accumulate under the frame. In normal conditions, steering is easiest with the wheels in narrow setting.

Another important aid to easy steering, operator comfort, and increased tire life is the load equalizer (Fig. 10), which equalizes the front end load over both wheels, permitting the tractor to "walk over" surface irregularities and to conform with ridges in the field. Riding is greatly improved because up and down movement of the front end is cut exactly in half as the tractor travels over rough ground.

Hydraulic Power Control. This control supplies power for raising and lowering integral equipment through the tractor rockshafts and for making field adjustments of drawn equipment through a remote cylinder attached to the implement and connected to the tractor by flexible oil lines. Both rockshafts and remote cylinder are actuated by one lever.

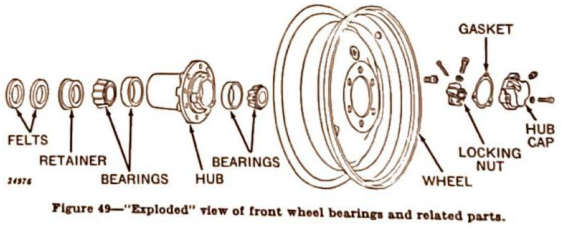


Figure 49—"Exploded" view of front wheel bearings and related parts.

The tractor shown in Fig. 21 can be equipped with "live" high-pressure hydraulic control which is direct engine-driven and operates completely independently of both the transmission clutch and the power take-off. Power is taken from the crankshaft gear and transmitted to the hydraulic control pump through the cam gear and idler gear. (See Fig. 51.) Whenever the engine is running the hydraulic power is available to the operator.

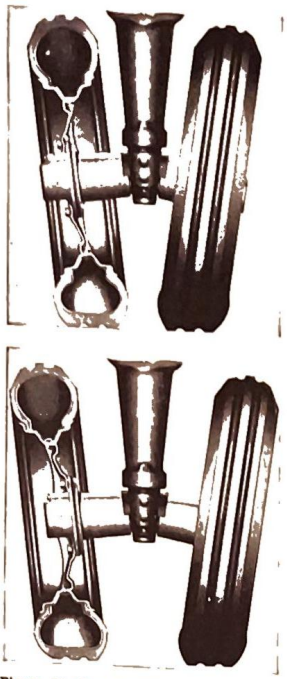


Figure 50—Front wheels set in normal position (top) and in wide setting as used on listed ridges or for easier steering in muddy conditions.

When the hydraulic power is used for remote cylinder operation (see Figs. 52 and 53), the power can be used to regulate and adjust drawn equipment. With this valuable extension of power, the height of the combine platform, for example, may be raised or lowered quickly, easily, and exactly to meet varying conditions; the plow may be raised just enough to pass over a bad spot in the field; the disk harrow may be straightened to cross a grassed waterway and angled quickly returning to work at the pre-set working angle.

Any degree of variation within the extreme limits set by the operator may be gained, simply by moving the control lever in the selective range, yet, when the lever is moved quickly to either extreme, the maximum lift or drop is obtained promptly.

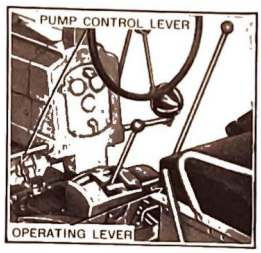


Figure 51—Hydraulic power pump control is engaged through the control leader. Operating lever has five operating positions; neutral, slow raise, fast raise, slow drop, and fast drop.

In making the simple change from rockshaft operation to remote cylinder control of drawn equipment, several basic considerations should be remembered. While the piston in the remote cylinder operates on a reciprocal motion, powered on both the outward and inward strokes, the cylinder should be placed so that the lifting load is always applied on the outward stroke, thereby taking advantage of the full area of the piston for the heavier load.

In coupling the oil lines to the tractor, knurled coupling adapter rings should be drawn up snugly by hand only—never with a wrench.

Since valve openings, or apertures, are extremely small—many of them smaller than the lead in a fine-line pencil—it is of utmost importance that dirt and other foreign matter are kept out of the system. The manufacturer has provided every protection possible, yet it is the operator's responsibility to use extreme care in keeping the system clean.

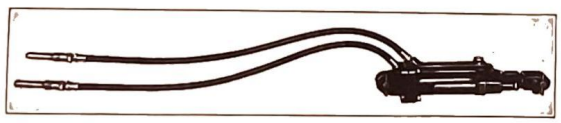


Figure 52—Remote cylinder complete with hydraulic hose. Fittings are capped to protect from dust and dirt.

The hydraulic unit requires very little servicing other than a periodic check for proper oil level. Change oil twice a year, preferably before spring and winter seasons. The entire unit should be drained and refilled to proper level with the correct grade of oil. When storing the remote cylinder, the piston should be pushed all the way into the cylinder to protect the polished shaft from exposure to dust and moisture.

Hour Meter. The engine hour meter, available in various types, enables you to take the "guesswork" out of servicing your tractor (see Fig. 54). It keeps an accurate account of the engine operating time. You protect vital parts of your tractor by lubricating "on schedule" instead of by guesses of hours or days of work. You can change oil exactly at 120 hours as recommended, replace the oil filter, service air cleaner, hydraulic system, transmission and steering at the proper time, giving full preventive maintenance care to your tractor.

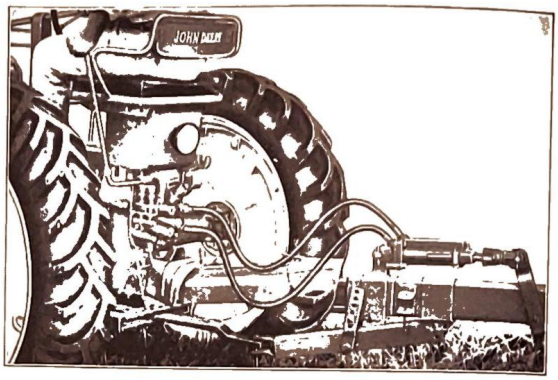


Figure 53—Power lift equipped for remote cylinder operation with hydraulic cylinder connections in position.

Figure 54—The engine hour meter.

Maintenance of Rubber Tires. The broad use of rubber tires on farm tractors and machinery has resulted in a great saving both in time and operating cost. There are, however, certain basic fundamentals in the care of tires that should be followed carefully if the owner is to derive maximum benefit from his investment.

First and most important is to maintain proper pressure for the work at hand. Your best guide to proper inflation is the instruction book covering the particular tractor or implement under consideration. Read your instruction book or consult your dealer concerning proper inflation, and *check air pressure regularly*. Underinflated tires suffer from rim bruises, sidewall snagging, and carcass failure. Overinflation increases tread wear (on tractors and ground-driven implements) and because of reduced traction, weakens the carcass, and hastens weather checking. An

Figure 55—Proper inflation is of utmost importance in the life of rubber tires.

air pressure gauge and a good tire pump are essential in maintaining proper inflation. Proper inflation is especially important where fluid weight is used since the air space is greatly reduced (see Figs. 55 and 56). A special air-water gauge should be used for testing tires carrying fluid weight.

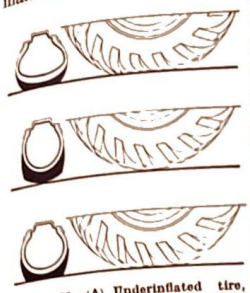


Figure 56—(A) Underinflated tire, (B) overinflated tire, and (C) properly inflated tire.

Grease and oil are natural enemies of rubber. Protect tires from oil and grease as much as possible. Should tires become spattered with oil or grease, wipe them off with a rag dampened with gasoline—but do this job *outside* the implement shed to reduce fire hazard. Never allow tires to stand in barnyard acids. If spray chemical gets on the tires, wash it off.

Inspect tires periodically for carcass breaks and cuts and have them repaired immediately. No cut is too small to require attention, for if it is not repaired, further damage will result.

Use tractor wheel weights (according to manufacturer's instructions) to secure maximum traction and minimum slippage.

Avoid high transporting speeds. Implement tires, unless otherwise specified, are not designed for speeds exceeding fifteen miles an hour. Take added precautions as tires age.

Don't overload. This applies particularly to combine grain tank extensions. Reduce speed and load, if possible, on rough ground.

Protect the tires of idle implements from sunlight.

When a rubber-tired implement is to be idle for a considerable time, block up the axles to take the weight off the tires, but leave the tires inflated.

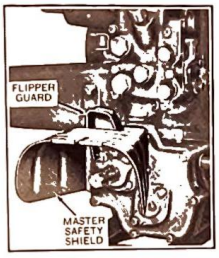


Figure 57—Shield should remain over the power shaft at all times.

Safety Precautions. Every year farmers are killed by accidents, many of which could have been avoided by using care in working with and around machinery. These are but a few of the many safety suggestions which should prove practical when working around the farm.

Only one person—the operator—should be permitted on the tractor platform when tractor is in operation.

Refuel your tractor only when the engine has been shut off. Do not smoke or use an oil lantern while refueling.

Be sure power take-off shields and guards are in place and in good order before starting field work.

Tractor brakes should be adjusted properly.

Do not oil, grease, or adjust a farm machine that is in motion.

Clothing worn by tractor or machine operator should be fairly tight and belted. Loose jackets, skirts, shirts, or sleeves should not be permitted because of the danger of getting into moving parts.

Never drive a tractor too close to the edge of a ditch or creek.

When your tractor is hitched to a heavy load, always hitch to drawbar and never take up the slack in chain with a jerk.

Always keep tractor in gear when going down steep grades.

Drive at speeds slow enough to insure your safety. Reduce to low speed before turning quickly or applying individual brakes. Drive slowly over rough ground.

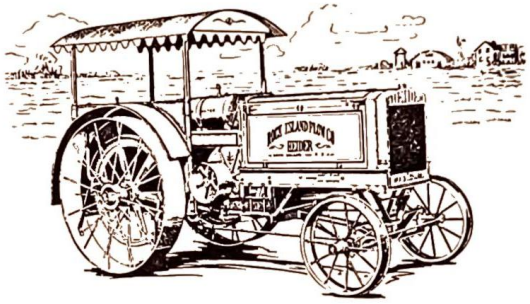
Keep a firm grip on the steering wheel at all times when the speed is increased.

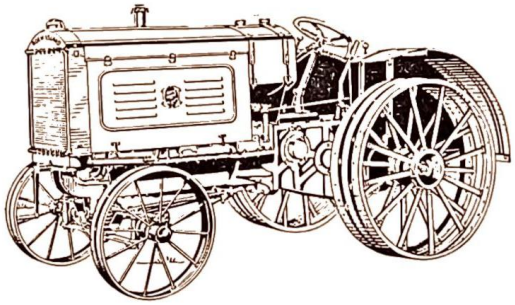
When hitching a drawn implement to the tractor, back the tractor past the clevis. Then move it slowly forward so that, in making the connection, the tractor will be moving away from you.

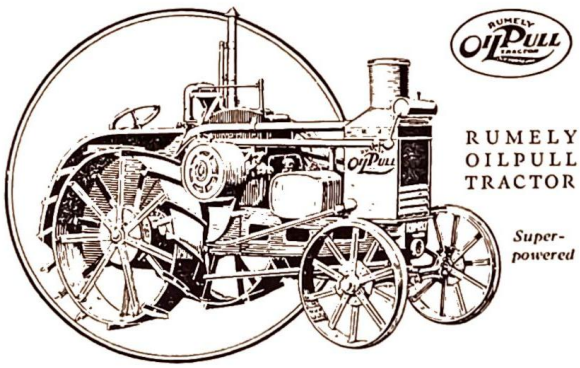
Provide a first-aid kit at the house for use in case of accident, and use the proper antiseptics on scratches, cuts, etc., without delay to prevent the possibility of blood poisoning.

Finally, remember this: An accident is usually caused by someone's carelessness, neglect, or oversight. The life you save may be your own.

ODD OLD TRACTORS

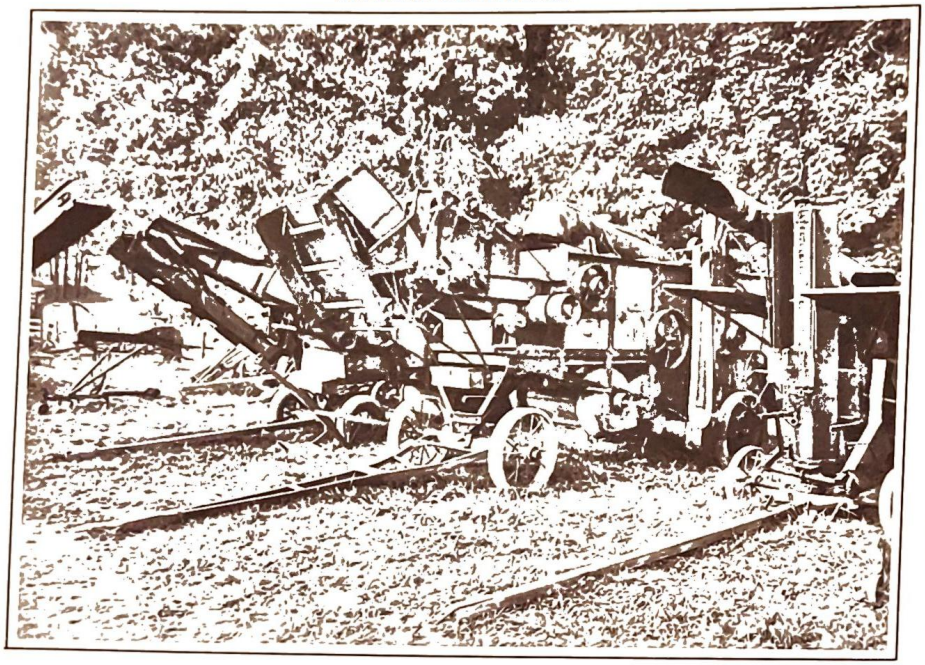


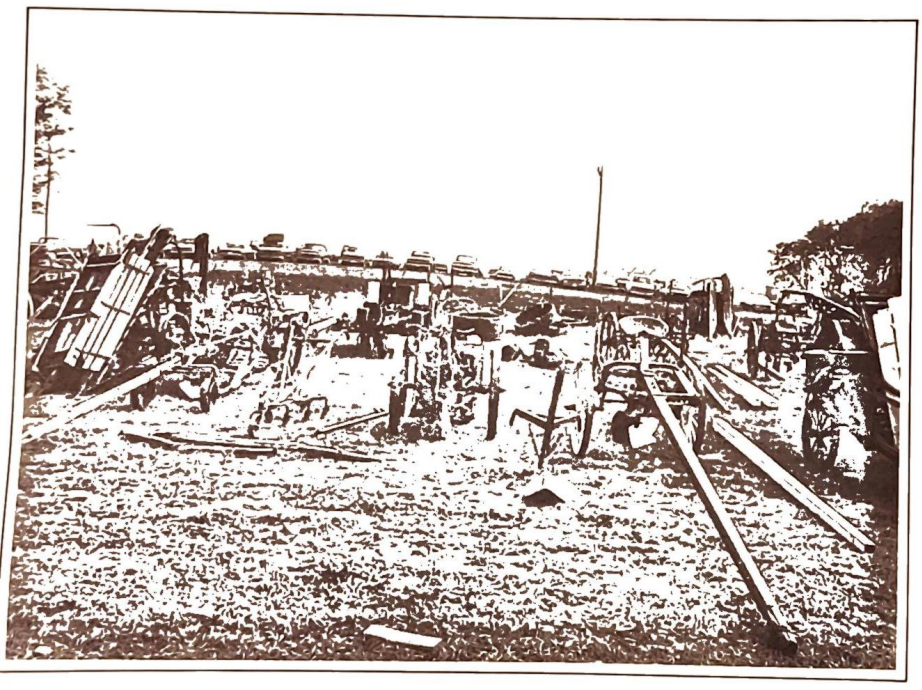




SFJ's FALL of 1985 TRAVELOG and Ohio Sale Report

PHOTOS BY KRISTI GILMAN





This September and October we made an epic journey across much of America in our old beatup pickup. My kids, Justin and Juliet, along with Kristi Gilman (the Journal's intrepid editor/photographer/special lady), and I drove clear to Millersburg, Ohio (3,000 miles!) to help out with the Horsedrawn Equip. Auction at Raber's Repair Shop.

The way there had us head south first, into California and to a visit with our friends at Caravan Stage Company who are on the 2nd leg of their 3 year U.S. tour. You may remember they are the folks who travel by Clydesdale powered wagons and do live theater in some towns. We all enjoyed this year's play "Coyote" which dealt, in a humorous and musical way, with the plight of the N. American farmer. We didn't get any photos but they promised to send us some so we could put together a good review for you.

The next day found us visiting with the McLin's of Davis, Ca. They raise Shires, Morgans, and sheep. And Brit McLin sometimes raises heck. From there we drove straight to Ohio by way of Nevada, Utah, Wyoming, Nebraska, Indiana and Illinois (is that in the right order?). The weather was either hot or windy or both and we were in a hurry so we made very few stops.

In Ohio we met up with so many old and new friends that we cannot possibly name them all. (But it sure was good to see our old buddy Bill Burckle looking so happy and well. Milk cows, Percherons and Kentucky do him right). While in Ohio we stayed with dear friends, Jonas and Katie Raber, and took the time to do some research for articles on a Woolen Mill, Cheesemaking, a small dairy and some new horsedrawn implements. All of that should be in the next issue.

Sale Report

The sale was quite a success as the photos on these three pages should attest to. The auctioneers; Steve Martin, Jake Slaubach, and Dean Beachie did a super job and over 800 items were sold before the evening milking! The consignments came from half a dozen states and included tip top implements. Prices were soft to down on good manure spreaders (with several no sales) but plows, planters, binders, and threshers went very well. Buggy and wagon prices were off a little. What little harness was on hand went well.

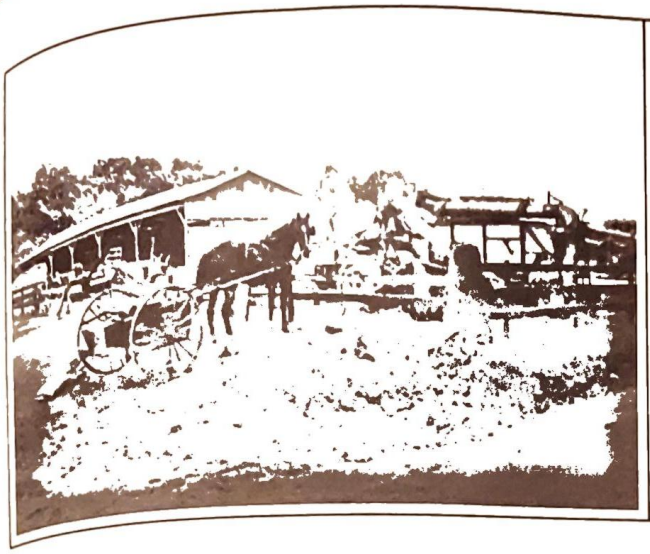
We apologize to everyone for not doing a better job of advertising this event as it sadly coincided with a difficult period for us.

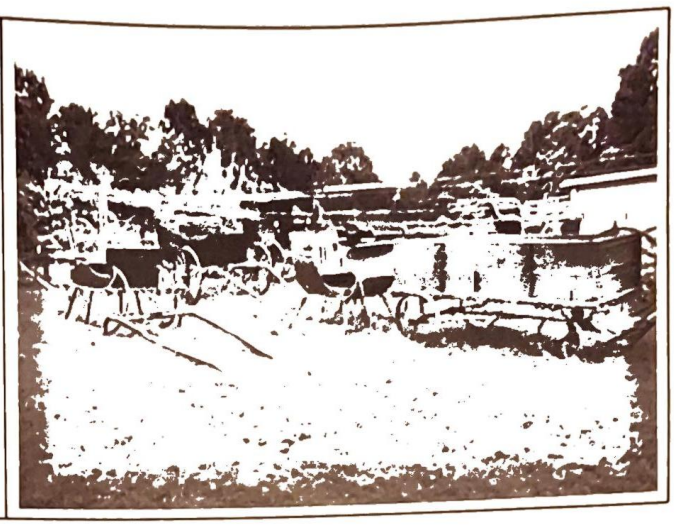
The Ohio Amish landscape was gorgeous in September with some corn going into shocks and fall field work in swing.

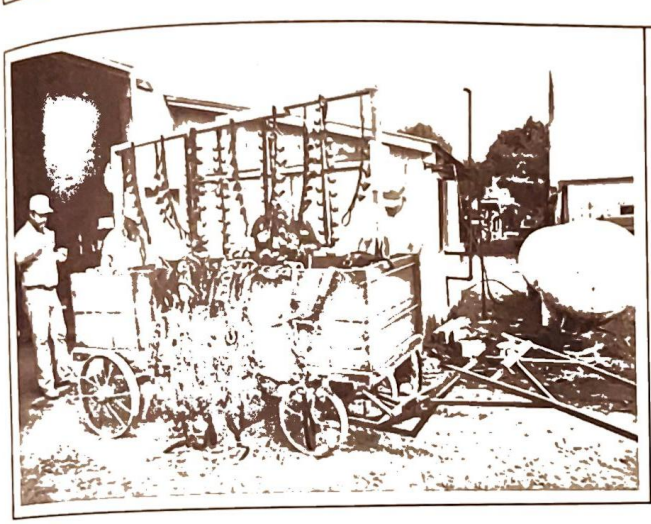
We then went on, again in a hurry, by a Northern route, to Waukon a little town in the northeastern corner of Iowa. We wanted to be there for the big four-day Hexom-Sweeney Draft Horse Sale. Considering the dismal condition of the farm economy in general, and the horse market in particular, the sale was very well attended and well run, as is always the case when Arnold Hexom and Ray Sweeney are in charge (see the Interview with Hexom in this issue). Many good horses sold for under $500. Only a few horses broke the $1,000 mark and that was out of some 400 head sold. Yours truly, totally unprepared, took the winning bid at $600 for a very nice 9 year old registered Belgian mare, "Rossler's Centennial Leslie" which, at the time of this writing is being boarded at her original home with Laurence Hilliard.

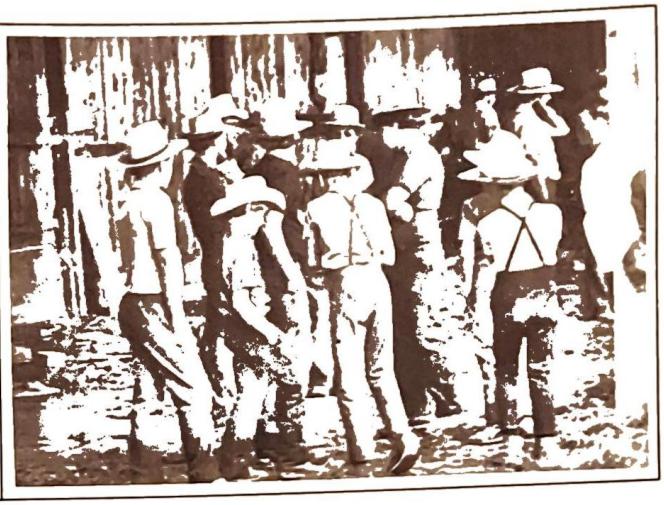
While in Iowa we visited with hundreds of new friends and old chums and put together some article material for this and other issues of SFJ.

Both photos on this page were taken at Raber's Repair Shop in Millersburg, early in the morning before the sale. All of this equipment sold later that same day to a very healthy crowd.







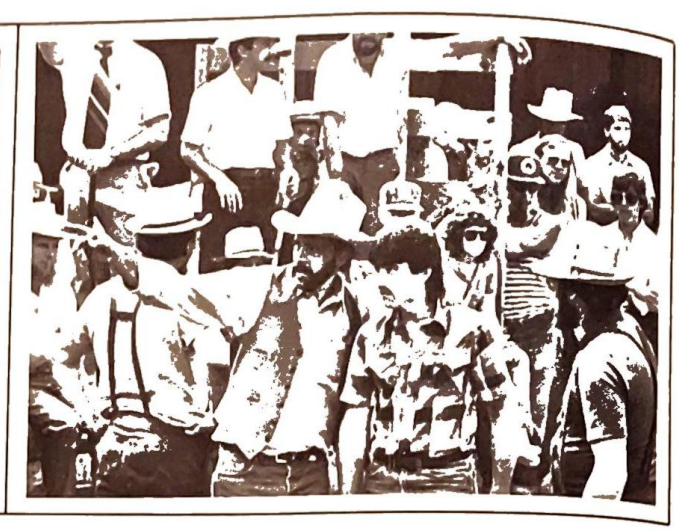


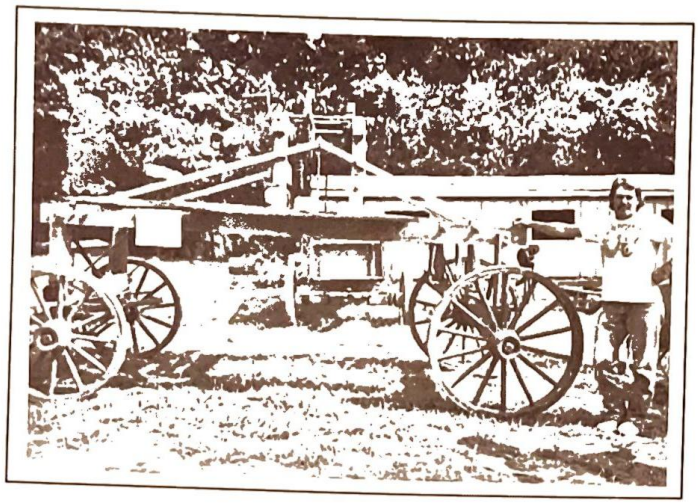
From there we drove to the black hills of South Dakota and visited the impressive and inspiring Mt. Rushmore memorial.

We were getting tired by this time so we crawled into Montana through a little blizzard which marked the end of the warm weather during our trip. In Montana, beautiful Montana, we rested for a couple of days with Robert and Leslie Clark of Whitehall.

If you are a regular reader of this magazine you will remember the Clarks as those people who share a ranch with the world's most magnificent, the one the only "Buck the wonder horse!" Buck is a 31 hand high, perfectly proportioned, highly skilled (never needed training) draft pinto who, when he's not in harness impressing the heck out of Robert's Belgians, serves as technical advisor for "Mark and Clark Construction Co." If you are in southwestern Montana and need ANY building done, but most particularly barns, make sure and call Robert Clark at 406-287-3078 and ask for Buck. Tell em "Dude" sent you. That'll through him cuz he doesn't know any dudes. But seriously, keep them in mind for the only draft pinto inspired building company in all of the Jefferson River country.

These photos on this page pretty much tell the story of how things looked early the morning of the Millersburg Sale and as people started coming in. You can tell it was a straw hat and shirt sleeve kind of day.

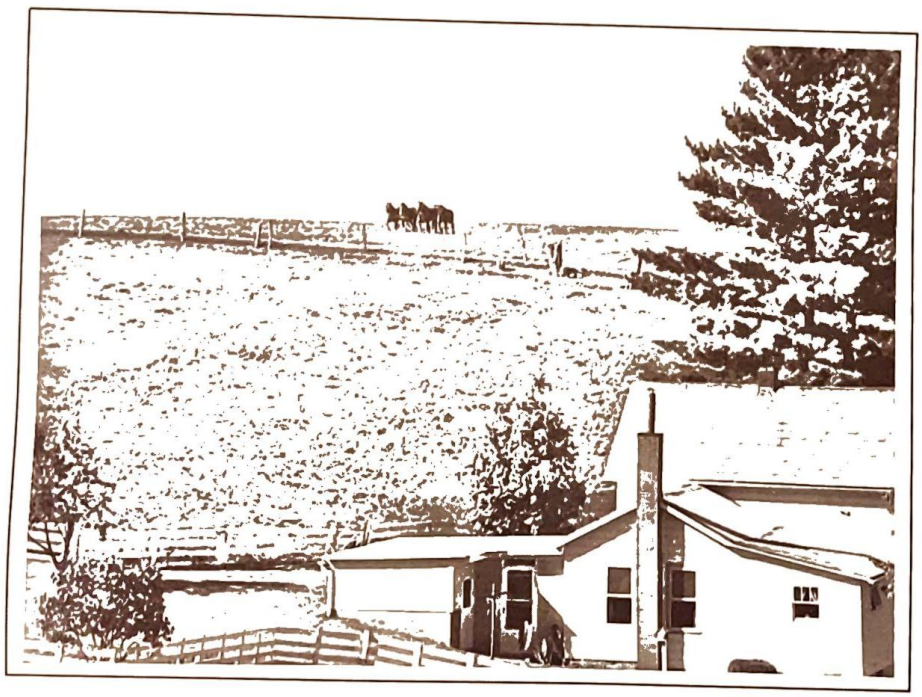




With a quick overnight at friends in Noxon we went on to Sandpoint, Idaho for their big annual show. Lots of new faces, new horses, and new wagons. An excellent show as always with a very strong showing of Percherons. Sandpoint just might be coming on as the strongest, hottest, Percheron show in N. America.

By the time Sandpoint was over we were definitely ready for Oregon. Justin and Juliet said they were mad about all the catching up they had to do at school. But it turned out to be the trip of a lifetime for them. And old Dad wouldn't have gone without them. But the trip would have been impossible without Kristi Gilman's help and good humor.

For all the good jokes and bad jokes, all the fantastic meals, warm hospitality, caring words and handshakes, thoughtful gestures and warm beds; we wish we could thank each and everyone of you in print, but there are just too many. You all know who you are, Thank You! so much... hope we get a chance to return the kindness sometime real soon. LRM



"This goat is broke to drag!" jokes Lynn Miller, as the only livestock of the sale provides a light moment for the crowd.

Lynn Miller (pointing) and Gary Yoder make plans to roll some more buggies into the sale ring.

Center: Jerry Slankard of Drafty Valley Farm in Strasburg, Ohio was the proud buyer of this extremely unusual rock mover.

Left; The Sale is over and the local farmers return to the September work. An Amish farm scene near the quiet little town of Charm (home of an outstanding little restaurant and, yes you guessed it the "Charm School").

SFJ's Interview With ARNOLD HEXOM

Photo by Kristi Gilman

Twenty years ago, when as a young man, I first felt my interest in draft horses become a plan, there was one name that carried magic for me, Arnold Hexom. Later, when I was feeling a feverish desire to get a team and went about reading anything I could get on the subject, I discovered that two Iowa men seemed to move out front carrying a bright torch for the draft horse. One was Maurice Telleen, the eloquent editor of the DRAFT HORSE JOURNAL. The other was Arnold Hexom, auctioneer and draft horseman. When I was finally able to make my first pilgrimage to the midwest draft horse auctions I watched Hexom sell draft horses at the Tri-State Breeders Sale in Cedar Rapids, Iowa — I was intrigued, the man had an uncanny memory, great style and a real flair that charged the whole event. Over the years Arnold has become firmly implanted as one of my real heroes. It is difficult to explain why, not hard to find the words, just hard to express the feelings. I am convinced that when the chapters are written of this recent history of the resurgence of draft horses and mules Arnold Hexom's name will be one of the most important. It seems strange to me that he is given so little credit today. And credit is due him for working so hard, for and with unswerving love of the draft horse. When in the late forties - early fifties horse prices were so low Hexom promoted them through his sales and his show hitches of outstanding Belgians and Percherons. There were many long, lean years for the draft horse but Hexom's faith did not and still will not falter. His shrewd eye for good horses, his sharp memory for pedigrees and his easy way with people combined to put important focus at the right itme. Many a key breeder ended up with an important stallion or mare because Hexom put them together.

But what fascinates me most about Mr. Hexom is how his very special style has served him and the draft horse industry so well. If you have not met the man, or seen him at work, you've missed a large part of the color of draft horses these last forty years. First Arnold is a gentleman — I mean old-fashioned, twinkle in the eyes, soft-spoken, true-heart gentleman. He wears his Stetson with a jaunty lilt to one side, and he is always immaculated well-dressed. There is a sing-song quality to his voice, even as it has aged, which must have served him extremely well in his heyday. But overall there is a charm that is difficult to describe except to say that this man has sincerity, wit and character all in a genuine package making him larger than life, yet so easy to know and appreciate. Yep, you guessed it, I like this man. Liked him before I knew him as a personal friend. And I've found out that Arnold holds up well under close scrutiny. Arnold Hexom is real! He is what you see and hear. He does believe the things he says. He's an honest man of style, wit and charm who has spent a long and rich life with a passionate love of draft horses. Each of us have been his benefactors.

While at Waukon this fall I got Arnold to talk with me for two hours on tape. Maybe hearing him will give you a better Idea of what I'm trying to say. I asked him to tell us about his love affair with selling big horses...

Hexom: I sold the first sale that the Tri-State Breeders had...I sold the first Eastern States Sale...and I sold a sale at Indianapolis for years, that's when horses were cheap.

Miller: When was that?

Hexom: Oh, that'd be back 30 to 35 years ago. I sold Elroy Brass that Maury DuMarais horse, first horse I ever saw sell for over $3,000. He brought $3,500 and everybody was talking out there and was wondering what went wrong that that horse could bring that much money. Well he did Elroy Brass a lot of good. He really was modern, he was a big horse, 18 hands, and he was good and all them DuMarais got to be some of the top bloodlines of the Belgian breed. I had the privilege of selling him. And to show you how cheap horses were back then, the best Percheron gelding I ever owned, I bought out there for $350 coming 4 yr old, not broke, Harry Heck showed that horse for me and he was never beaten at any fair, was grand champion over all breeds in Iowa, every place he'd shown. That fall we sold him and his mate for $2500 to A Canadian Lumber Co. That horse originally cost $350 and his mate $250.

M: What year?

H: Early 50's late 40's, had run the sale barn for about 5 years. Never had time to show many horses but they were my first love. I had the sale barn (Waverly) ... that's a full-time job. By the way, I owned this Charley horse, bought him as a two year old and his mate at Indianapolis. We showed him and were never beat. He was grand champion every place we showed him. We used him for several years. I sold him to Roland Ruby when I got out of the Belgians. He was grand champion for Ruby in Wisc. and every place he showed him. He kept him til he was 17. So, I've had some good horses.

M: What Belgian stallion impressed you the most?

H: I would have to say that the three stallions that Meadowbrook come up with. They really turned out some outstanding horses. That was the greatest line. Then we came up with this Marcus DuMarais, he did a world of good. But I would have to say that tops goes to Harold Clark and his stallions. Now, this Conrais horse has sired some tremendous horses for Hale Bros., that's Meadowbrook breeding again. ...There have been some wonderful crosses out of that Marcus DuMarais horse. But I'd have to say Meadowbrook breeding.

M: Alive today, what Belgian stallion would you give top honors to, Conrais?

H: The horse is doing an awful lot of good on good mares, right now.

M: In Percherons what do you say?

H: This Koncarhope is tremendous in Canada...We've come along with some crosses that are modern type today. Drake's Farm Chief was a great horse in his time but we have horses today that are far more modern. That Justamere breeding up in Canada is the most talked about today. But Monroe Miller in Ohio has a popular horse also. Now that Laet breeding has done a wonderful job out in western Canada. I like that Laet, I like the hitching type horse and Laet see,s to wear a harness and be a terrific mover.

M: What about Degas breeding?

H: Great, big horses, good horses. I think they were more rugged horses, as I see it, heavy boned.

M: Right now the Percherons are a little bright spot in this depression...

H: The reason is there are some pretty good hitches come out and of course there aren't the numbers. The Belgian is far more plentiful. When I started with Percherons there were three registered in the state of Iowa. Well, Maurie Tellen started the Cattle Congress and we had to get Percherons in from Minnesota and Wisconsin just so we could have three breeds there. That's when I really got interested in these Percherons. When I was a youngster on the farm they could take more heat and walk freer. The Belgian horse, back in those days, was a thick powerful horse low-headed, more the heavy farm chunk, When we wanted to go to town in the summertime with a load of hogs we had the more leggy Percherons. They could walk to town eight miles with a load of hogs in the summertime; leave real early in the morning be back by 10 and be on the mower all afternoon. The Belgians couldn't quite take that. When it came to the plow, though, these Belgians could hang in there all day and were good horses. But the Percherons were good footed, taller and not as thick a horse. Then we crossed some of our Percherons (years back) with Morgans. They made a wonderful all purpose team. I took my sister to high school seven and a half miles in the snow and I'd leave about 8 in the morning and I'd have her up there in plenty of time. They were ambitious, all you had to do was ease up on the lines. One time I trotted em home, on the sleigh, it took a half hour. When you planted corn, they were what we liked because they would walk easier and the corn planter in those days wasn't so heavy. We could plant 15 acres of corn a day or more. We put in long days and we always milked cows. But some of the farmers with the lighter, handier horses would plant 18 acres of corn in a day. Percherons were a lost breed. I took a liking to them. We didn't have them in Iowa. When I got out of the second world war and came to Waverly, I got some Belgians. We showed them, didn't do very well. But we learned from the horses that were winning. I finally got some pretty good horses. I bought a stud colt and a mare from Harold Clark. That stud colt was 1st place and Jr. Champion at the National Belgian Show. After a few years I sold him to Miles McGrew.

M: What was Harold Clark's secret. He was so consistant. You knew him, what was it that he looked for that we might be missing?

H: He always looked for a horse that was naturally high-headed and had great hock and knee action. Many of today's hitches come out of Harold Clark breeding. Tremendous man, he was so dedicated. Don't know any-

body who worked harder. He was always the same and his horse always came out fit as a fiddle. He was a terrific showman and he was a nice fellow. He wouldn't stand for a lot of misuse or abuse. The boys who worked for him were good fellows. Take our good friend Eddie Freitag, he started with Harold Clark. Harold is due credit for giving many boys help and opportunity. He could show a horse, I'll never forget that man when I was young and watching him. He had his horses trained, he'd just stand there and play with that strap. That horse always stood at attention, if he didn't he put him there. He kinda made em do it but he was good to em. Harold was one that I watched. He had the winners. And of course you watched the ones who beat you. We have so many other top horsemen. The Sneckloths, Herb and Don, that family has been a great asset to the Belgian breed. Now we've got the Curtis family — third generation, they've done a lot of good. Elroy Brass is another one who has come up with pretty good horses.

M: Clydes and Shires seem to be coming on. But what about the genetics, is it limited by so few numbers?

H: There were some Shires in Elmsby county, ½ Shires, they were a good work horse but, to me, they weren't that attractive at that time. They were a coaser horse. They were a good honest work horse, they'd make pullers where these Clydes never did grow out too popular for pulling. But for show (the Clydes) sure wear the harness and look well and are great horses. The Shire today is almost extinct. And we've got this man whose got all these horses in one place (most of them) and I don't know what to think, it worries me...

M: Yes, that's a wait and see situation. What about the Suffolk horses?

H: Say, these Suffolk horses are a wonderful horse. The little I know of them, which isn't a lot, they are a wonderful disposition horse. Easy keeping horse, and bred true to color. I remember many teams of these, they weren't a big horse but they sure were a farmer's friend. Easy horse to get along with. Wonderful temperment may be more so than any of the others. They were good and honest, they never got bred tall and rangy. Modern horsemen are wanting a little more stretch to him. Whether that's good or bad. The modern man is thinking about hitches with big tall horses. These Suffolks never got that way.

M: On the topic of conformation: there's been lots said about what makes a better work horse and what's wanted in a hitch horse. I've been watching something very interesting over these last few years. Some good Amish farmers have been alble to do something important. They are paying close attention to the market. The Amish are first and foremost farmers and stockmen...

H: Right

M: ...any question of whether a taller or shorter horse is better in harness is set aside for a minute. There are a lot of good horsemen in the Amish communities, of course there are some bad ones too, but there are lots of good ones who are raising horses of the modern kind, tall hitch horses, which they are using for their field work, keeping those stallions and mares, using them and putting them into the market place. These Amish have been and are responsible for much of the new blood in the Belgian breed...

H: Right

M: Now, we've argued in print that maybe we ought to look at the possibility that a smaller horse is better for the small farmer. And there's a lot of things you can put into that arguement. But to round out the arguement (and play devil's advocate) I can see there's a possibility the SmallFarmer might do well to consider raising the best hitch horses, put them to work on the farm and have them available to the market...

H: I think you're right there. I'm not a lover of a big horse. I've had some pretty good hitches. And I've had horses around seventeen hands, or a little over, but that is a big horse to me. Many of these hitches, if you don't have an 18 hand horse they're not interested. That's their privilege. I do like to see a horse that's a free mover. When I see a sixteen hand horse that's heads up, he's a very good horse to me. I feel a little badly that some of these horses have got to be so tall, because its my experience that you lose quality — maybe 2 out of 10 of the taller ones are the right kind -- the rest get too tall and gangly and not put together like a horse should be.

M. One of the finest hitches that I've ever seen in the show ring is Harold McMain's Belgian six...

H: Right!...(smiling) I watched him at Denver and watched every team (of the six)...they are really graceful. They are the best out and sometimes others beat them...

M:...because they are not the biggest?

H: Yes, but to me they're big horses, I don't want to say they're small horses...

M: They're not small, that's for sure...

H:They are sure the hitching type. He's got horses that really move out and work together as a unit. And they are really graceful!

M: I talked to Harold McMain a little today and was not surprised to find out that what we see when we sit in the bleachers, watching him drive, comes from what he does at home with those horses...

H: (smiling) Right...

M: Those horses are trained, exceedingly well trained...

H: (smiling and nodding his head) Right!

M: We hear too often a troubling remark, that the only way a hitch can win today is to go into the show ring green, scared, and with a little pain.

H. (frowning) Yes...

M: As far as I'm concerned, as a lover of the horse, that makes absolutely no sense to me.

H: No.

M: So it is a real joy to see someone like Harold McMain go into the ring and do so well, he may not win but he's the best in my book...

H: Right, right, right! I'm absolutely of the same opinion. A horse has a natural way and you can help by training them but I tell you this dope and pain and monkey business — there's too much of that going on. I don't like it. I don't like it... I don't like to see that.

(NOTE: at this point we both spoke specifically of those people who we know are responsible for cruel and inhumane acts to guarantee winning. We were both in agreement that this space would be better put to praising those who do not use cruelty or dirty tricks.)

H: Harold McMain is a fellow who hasn't had enough good publicity. His dad was a good horseman but Harold is better. And I've had many fellows tell me that he is a super driver. I had the privilege of judging at Indianapolis several years ago and they started the mare team class that year. Harold came down with the poorest wagon and a decent harness but not in the class of the others. I'll tell you...talk about two mares that drove! Heads up ! And they come with their ears ahead! He just sat there with his lines down here, no effort. And I give him first place. Of course,I had some criticism. And they asked me why and I said when I ask for a trot I don't want a runaway but I want a team that's got a business trot, a team that comes together. These other horses just didn't look natural. But Harold had it. I had some good fellows tell me I sure missed that one, but I satisfied myself.

M: I noticed that new wagon of McMains, it is sooo well balanced...

H: Isn't that the truth...

M: It's such a beautiful wagon. Just enough different but the proportions are perfect.

H: Yes, beautiful. That's the best wagon I've seen built in my lifetime. I love that wagon of Harold's. It's suitable for a team, for four, ideal for six. There's lots of planning went into that wagon.

M. Arnold, what about the horse market today?

H: When the horses were up, you bought a horse this year and it increased in value next year and you sold the colt for half of what you give for the mare — and all that - there were a lot of fellas never intended to work a horse but they were in there buying and just making a fast buck, you know. That made this market a little too high. It got to be where the good mr. farmer who wanted a pair of horses, they got too dear for him.

M: What do you guess will happen when things turn around?

H: I think we've got lots of people who love horses and are having to get out of them, they don't want to, they have to. They love to have them. They'll be right back in there. Maybe we wont see horse quite so high, 'cause they were too high. And of course when we get money back where it should be with foreign countries we'll be able to start these big horses in the ring at $400 to $450 and be no trouble. Now, there is no floor, no nothing...

M: There was a time when you had your big sale in Waverly (Iowa) and you started to see people coming from California, from Texas, Florida, New York, all over the country!...

H: Right, right (smiling)...

M:The market was climbing. Do you see a shift away from the midwest as the market center for draft horses?

H: There are more horses in Calif. now. We have more horses scattered all around. Wonderful horses all around. Thirty years ago all the horses were here. Now there are breeders in all those states.

M: You think the market will never be centralized again in the midwest?

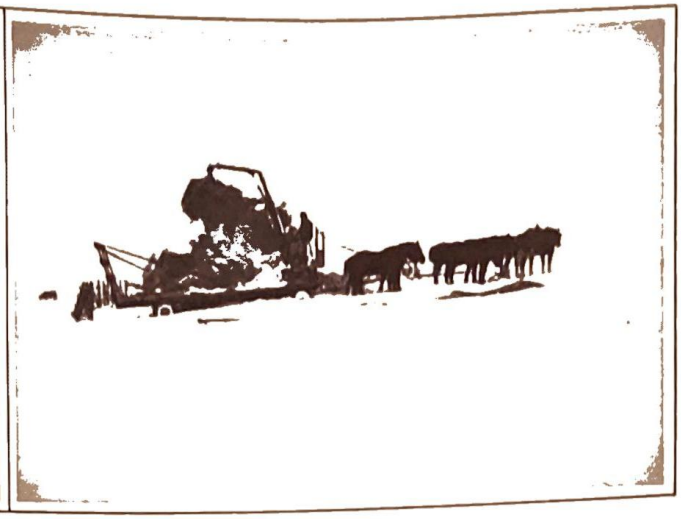
H: I doubt it. I don't think it will be. I hate to say that. But that's my feeling.

M: There's absolutely no doubt in the minds of thousands of people who love draft horses, that you've been very good to them. Have they been good to you?

H: Yes, Oh, yes. When I started the auction at Waverly, I started for dairy cattle and we had the largest cattle sale in Iowa... I love dairy cows. But I always liked horses, so I started putting on a horse sale and it was small but it was about the only place you could sell a horse outside of Indianapolis or Columbus or Tri-state breeders. I enjoyed it all. Every year it grew. We had more horses than we could accomodate. We sold horses til 3 in the morning and everybody was so fagged out. People were good. I'm happy when I think of the horse business, its been good to me, been my life. Thirty years ago we had a lot of shifty horse traders and lots of bad horses. But today we have got a better class of people. We represent these horses as we see them on the hitch wagon and that was one of the best things we did.

There was some pretty good horses come out of our sales that did people some good...

There is more text to the interview with Arnold which I plan on incorporating into an article on the current draft horse market which I hope to have ready for the next SFJ. On the day the tape was made Arnold had been up since before light and working with his partner, Ray Sweeney, helping to sell several acres of horse-drawn equipment in the first day of the Waukon sale. He still took the time to spend two hours that evening with me and my tape recorder. Arnold if your are out there reading this, Thank you again and I hope I have done all right by you...you spoke of watching Harold Clark because you wanted to learn from a winner — I've been watching you for a good long while because you are, in my book, a winner. I hope I am able to make the best use of the lessons you've shown me. Please know that there are many, many of us out here who owe you a debt of gratitude for being an honest champion of the draft horse and of good horsemanship. My hat's off to you, thank you for allowing me to call you my friend. LRM



HORSEDRAWN HYDRA-FORK, Montana Winter.

Roland Moore, a friend from Norris, Montana, shares the Cold Springs Ranch with his wonderful wife, Elaine, their family, a herd of cattle and some fine Belgian and Percheron horses. Roland feeds in the winter with this hydraulic fork mounted on a 24 foot wagon hay rack pulled by six head. He uses six 'cause he loves to drive. Roland has a well deserved reputation as being extra good with the ribbons. Roland was in the Teamster Jam a few issues back. I hope to make him the subject of an article pretty darn soon. LRM

Farm Kitchen Recipes

MAPLE FUDGE (PENUCI)

2 Cups Brown Sugar
1 Cup Milk
1½ Cups Pecan Nuts, chopped
1 Tablespoon Butter
1 Teaspoon Vanilla

Boil sugar, milk and butter together until mixture forms a soft ball in cold water. Remove from fire, add vanilla. Add nut meats and spread in a buttered pan.

THAT CHRISTMAS FRUIT CAKE

1 lb. Butter
1¼ lb. Sugar
1 Doz. Eggs
1 lb. Flour
1 Cup Syrup
2 Tbsp. Strong Coffee
1 Cup Plum Jelly
1 Tsp. each of Cloves, Spices, Nutmeg, Cinnamon and mace
1 Tsp. Vanilla
1 Tsp. Soda
4 lbs. Raisins
2 lbs. Currants
1¼ lbs. Citron
1 lb. Orange Peel
1 lb. Lemon Peel
1 lb. Crystalized-Pineapple
1 lb. Crystalized-Cherries
1 lb. Pecans
1 lb. Almonds

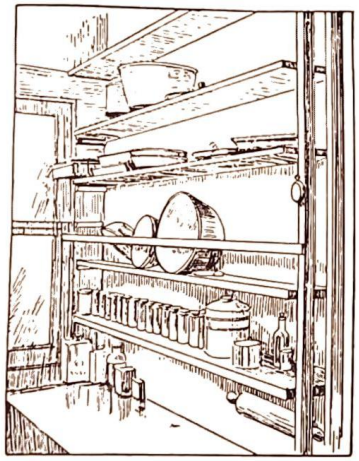
Flour all fruit well and add to mixture. Makes very large cake or two small cakes. Bake three hours in a moderate oven.

HARVARD BEETS

Cook beets until tender. Plunge in cold water, rub off skins and cut in cubes. Make a sauce of the following and cover hot diced beets:

¼ Cup Sugar
2 Tbsp. Flour
2 Tbsp. Butter
¼ Cup Vinegar
Salt and Pepper
¼ Cup Boiling water or beet juice

Melt butter, add flour, sugar, water and vinegar. Cook until thick. Add salt and pepper.



CRANBERRY MOLASSES PIE

Cook over low heat for ten minutes :

1 Quart Whole Ripe Cranberries
1 Cup Brown Sugar
1 Cup Molasses.

Line a deep pie dish with pie crust. Fill with cranberry mixture, cover with strips of crust, criss-cross. Bake 45 minutes to 1 hour.

NORWEGIAN CLOOB OR POTATOE DUMPLINGS

1 Dozen Mashed Potatoes
1 Dozen Grated Potatoes
3 Eggs, Beaten
1 Tsp. Salt
3 Tbsp. Sweet Milk

Mix together and knead stiff like bread. Wet hands with water and knead balls with a amalll piece of fat pork in center. Boil in pork broth for one hour and serve with butter.

VEAL LOAF

Chop two pounds lean veal and one-fourth pound salt pork; add one cup cracker crumbs, three beaten eggs, one teaspoon salt, few grains cayenne, one teaspoon onion juice and one tablespoon lemon juice. Mix with well flavored stock. Press into bread pan, cover. Baste occasionally during one hour baking time.

SALMON AND RICE

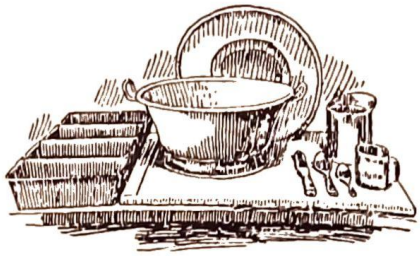
1 Can Salmon
1 Cup Boiled Rice
2 Tbsp. Butter
½ Tsp. Salt
1 Cup Milk
2 Eggs
Dash Pepper
Dash Paprika

Mix together flaked salmon, milk, boiled rice and beaten egg yolks. Stir in melted butter, salt, pepper and paprika. Fold in stiffly beaten egg whites. Pour into buttered pan and bake in moderate oven 30 minutes.

APRICOT MOLD

Two cups apricot pulp
Juice of One Lemon
½ Cup Sugar
1 Tbsp. Maraschino Cherry Juice
1½ Tbsp. Gelatin
1 Cup Water

Stew apricots until they are very soft and put through a strainer, or rice them. To two cups of the pulp add the lemon juice, sugar and maraschino cherry juice. Soak the gelatin in one-fourth cup of cold water and dissolve in three-quarters of a cup of boiling water. Add this to the first mixture and set aside until it begins to harden. Then beat with an egg beater until light and turn into a mold. Set in the refrigerator and when the dessert is firm, turn it out and garnish with whipped cream. This will make from six to eight servings.



SWEET WHOLE WHEAT MUFFINS

2 Cups whole wheat flour
¾ Tsp. Salt
¾ Tsp. Soda
1 Egg
½ Cup Molasses
¾ Cup Milk

Mix together dry ingredients. Beat egg slightly and mix with liquid. Add all dry ingredients at one time to liquid to prevent lumping. Pour into greased muffin pans and bake in medium oven (375 degrees F.) about 25 minutes. Increase heat if necessary for browning during the last ten minutes.

CHRISTMAS PLUM PUDDING
—An English Recipe—

1/2 lb. Suet (Chopped fine)
½ lb. Raisins (Chopped fine)
½ lb. Citron
½ lb. Currants
½ lb. Brown Sugar
1 Cup Flour
1 Tsp. Soda
1 Cup Cold-Coffee (liquid)
1 Tsp. Nutmeg
4 eggs, well beaten
1 Cup Sherry flavoring (grape juice or highly flavored fruit juice)
Crumb fine ½ loaf-white bakers bread
1 Tsp. Cloves
½ Tsp. Cinnamon

Beat all of this well together and steam 5 hours in large pudding mold or 4 hours in small containers.

FIG PUDDING

½ lb. Dried Figs
1 Lemon
½ Cup Chopped Nuts
½ Cup Sugar
¼ Tsp. Salt
3 Tsp. Cornstarch

Wash figs thoroughly. Cut in small pieces and soak overnight. Cook until tender in water in which figs soaked. Add sugar, lemon juice, salt and cornstarch and cook until thick. Remove from fire and add chopped nuts. Serve with whipped cream.

GRAPES IN WINE SAUCE

4 Cups of any three types of grapes, washed, stemed and seeded;

Boil 2 minutes: (for color)
1 Cup Red Sweet Wine
1 Cup Water
½ Cup. Sugar
1 Tsp. Cinnamon
¼ Tsp. Nutmeg

Pour over grapes while hot. Let stand until cool.

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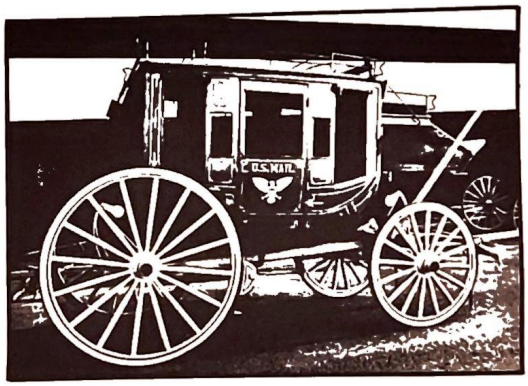
We have lots of miscellaneous items, some new collars, a new single driving harness, used eveners and assorted parts. PLEASE NOTE: Because of our move some of our inventory is in our Eugene warehouse and half is on the farm at our Reedsport address. If you wish to visit and shop PLEASE CALL AHEAD. When our move has been completed we will hopefully have one new facility on the farm. In the meantime please pardon the confusion.

The HORSE DRAWN IMPLEMENT COMPANY is pleased to announce that we will soon have an Eastern division housed in Millersburg Ohio and manned by Jonas Raber. If you are in need of equipment or have items you wish to consign for sale and are nearer to Ohio than to Oregon contact him at Rt 6 Box 67-A Millersburg, Ohio 44654 (no phone). Our Oregon address is HORSE DRAWN IMPLEMENT COMPANY HC 81 Box 68, Reedsport, Oregon 97467 (503) 599-2230. Thank you



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March 1 for the April 15 issue (Spring)
June 1 for the July 15 issue (Summer)
Sept. 1 for the Oct. 15 issue (Fall)

Please print or type your ad. SFJ is not responsible for errors due to illegible writing.
All ads received after deadline will appear in the next issue.

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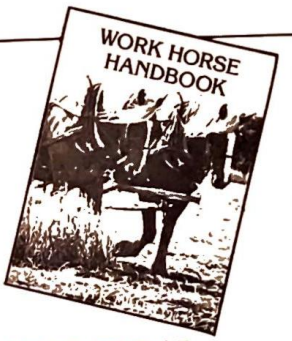

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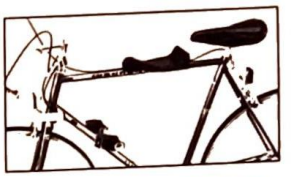

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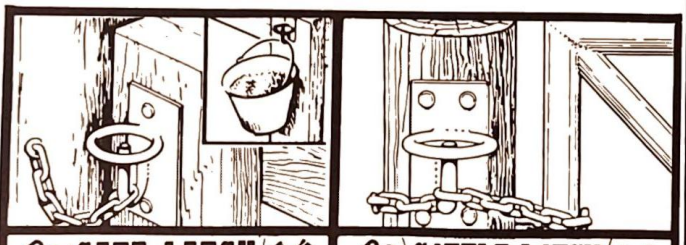

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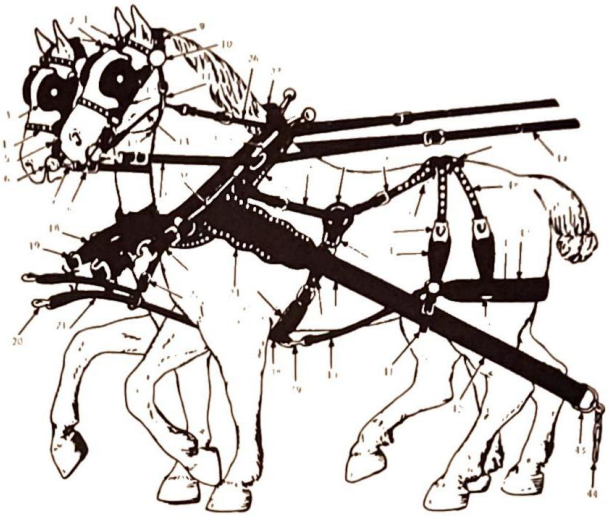

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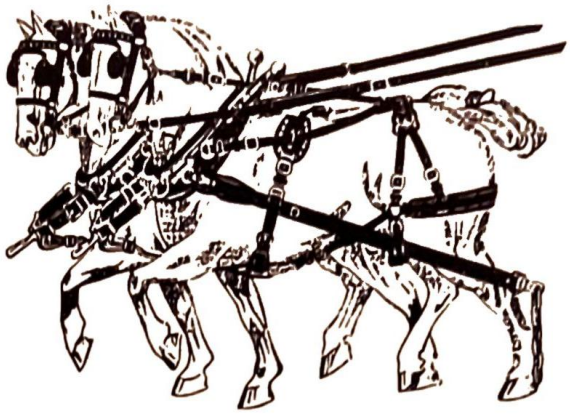

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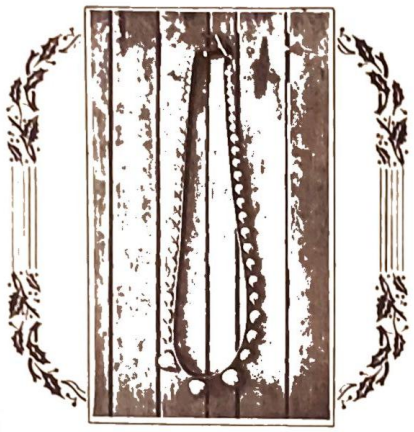

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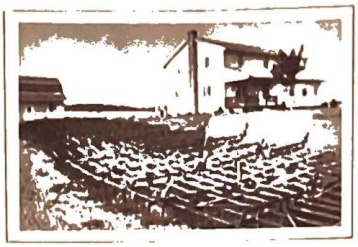

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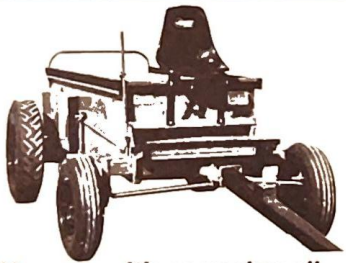

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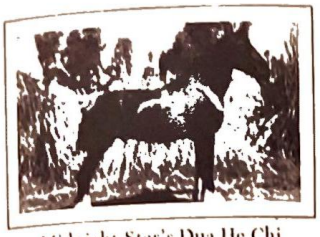

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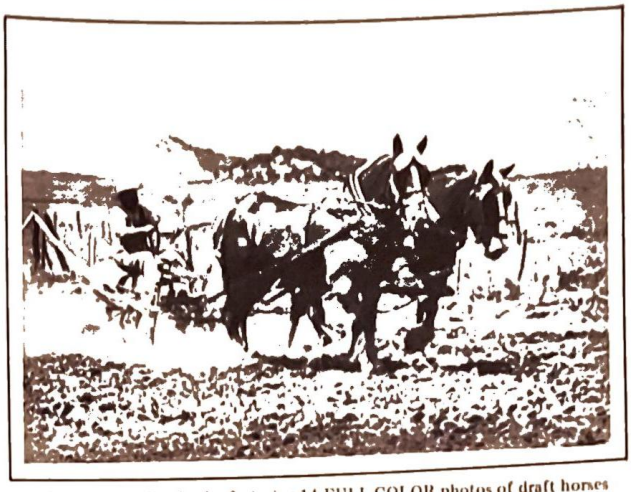

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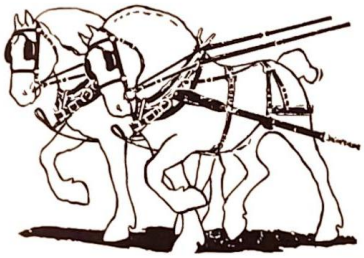

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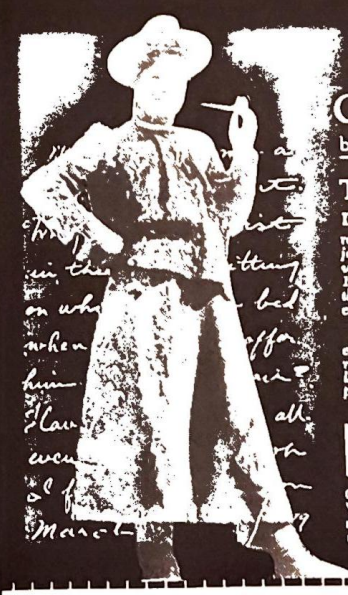

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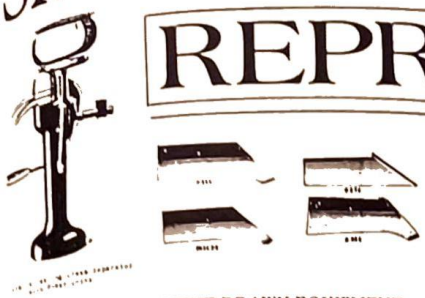

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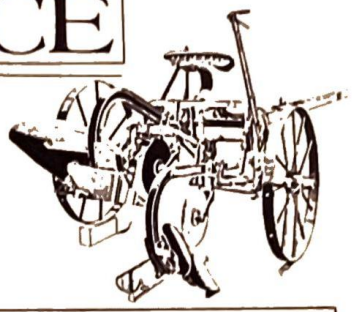

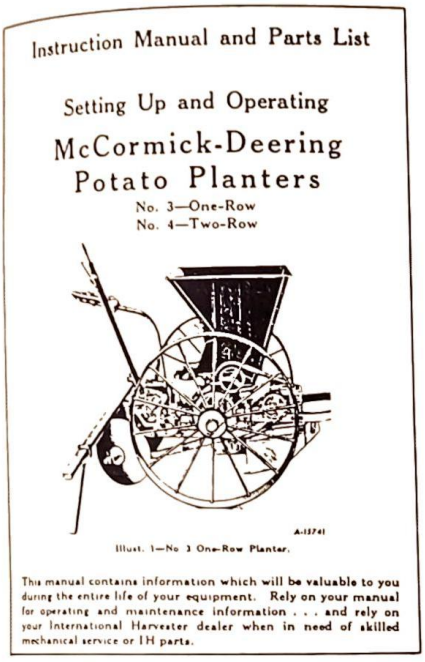

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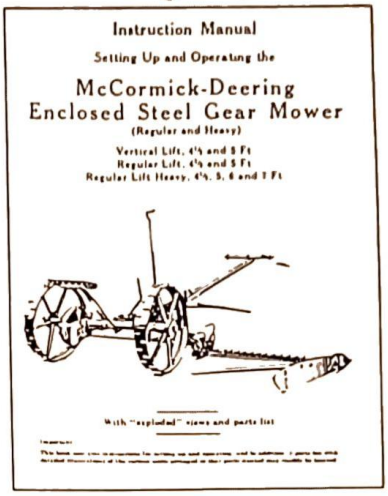

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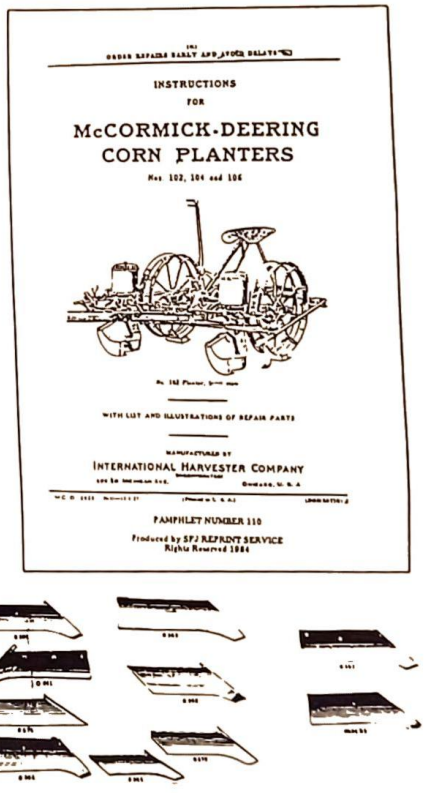

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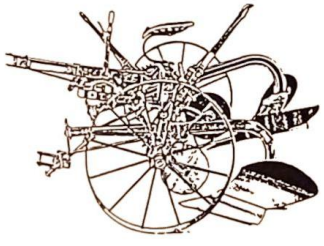

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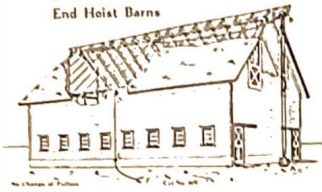

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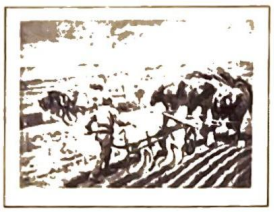

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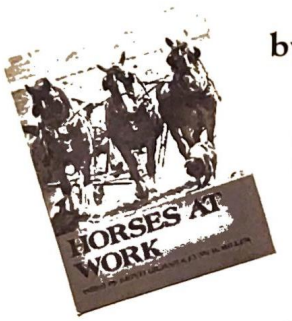

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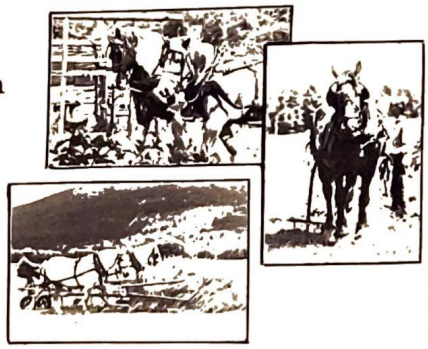

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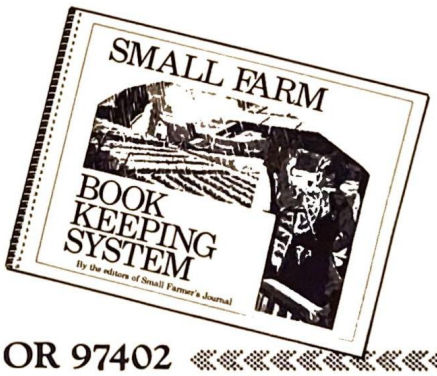

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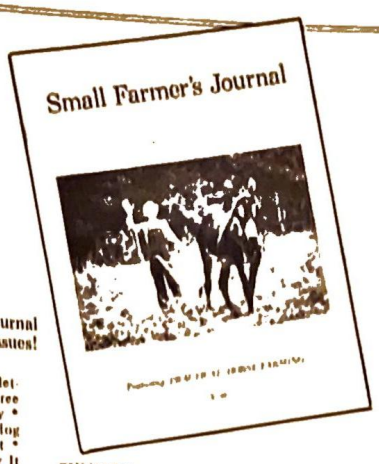

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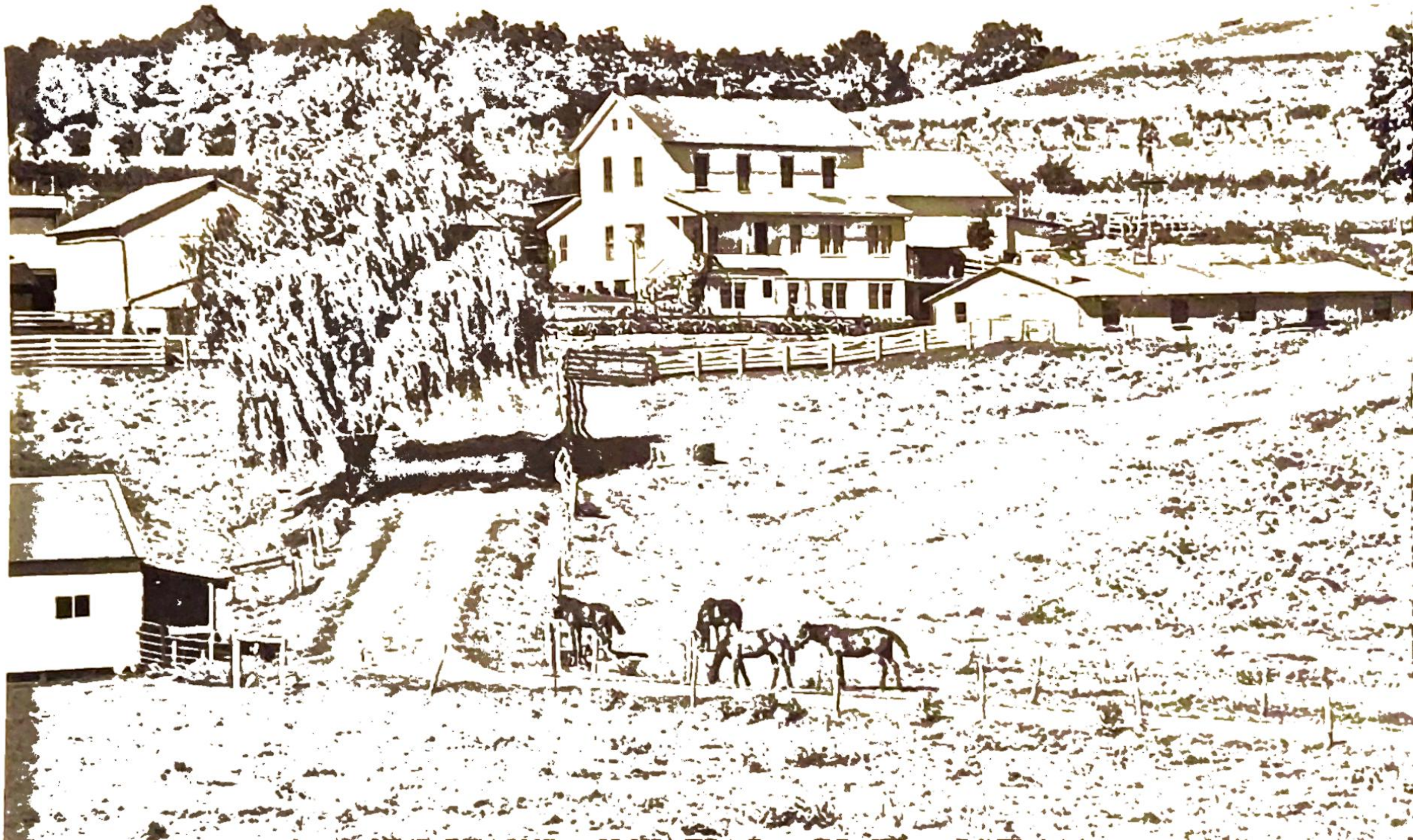

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